Response to Comments

Promulgation of Air Quality Implementation Plans; State of Texas; Regional Haze and Interstate Visibility Transport Federal Implementation Plan: Best Available Retrofit Technology and Interstate Transport Provisions

Docket No. EPA-R06-OAR-2016-0611

June 2020

Table of Contents

1. Notice and Comment

Comment: The October 2017 final rule promulgating the Texas SO_2 Trading Program did not follow the Clean Air Act's procedural requirements for promulgating a FIP. Under the Clean Air Act, a FIP cannot be adopted without following the public notice and comment procedures set forth in 42 USC § 7607(d)(1)(B), (d)(2)-(6). Among other things, EPA must first publish a proposed rule in the Federal Register that is accompanied by a statement of basis and purpose and specifies a comment period. Id. § 7607(d)(3). The statement of basis and purpose must include a summary of the factual data on which the proposed rule is based, the methodology used in obtaining and analyzing the data, and the major legal interpretations and policy considerations underlying the proposed rule. Id. EPA must allow any person to submit comments, and in addition, shall give interested persons an opportunity for the oral presentation of data, views, or arguments. Id. § 7607(d)(5). These and other public participation requirements in § 7607(d) build on those in the Administrative Procedure Act, and are even more protective of the public's right to notice and comment. In the January 2017 proposed rule, EPA established source-specific SO_2 emission limits that would require the installation and operation of modern SO_2 controls or upgraded controls for Texas generating units that are subject to the Act's mandate for BART. See generally 82 FR 912. The BART proposal's SO_2 emission limits would have cut haze-causing pollution from Texas power plants by approximately 194,000 tons compared to recent emission levels.

In the October 2017 final rule, EPA adopted an intrastate emissions trading program that was not presented in the proposal. In contrast to the January 2017 proposed rule, the October 2017 final rule promulgating the Texas SO_2 Trading Program would not result in any reduction in haze-causing pollution. The Texas SO_2 Trading Program would allow a potential increase of 47,234 tons of SO_2 above 2017 levels. By adopting a trading program that was never proposed, EPA did not follow the rulemaking procedures required by the Clean Air Act.

Response: As we explained in our October 17, 2017 final rule, during the comment period for our January 2017 proposed rule, we received comments from the Texas Commission on Environmental Quality (TCEQ) and the Public Utility Commission of Texas (PUC).[1] These comments urged us to consider as a BART alternative the concept of emission caps using CSAPR allocations. We also received similar comments from Luminant and American Electric Power (AEP). Based on our consideration of these comments and our independent determination that a BART alternative approach under 40 CFR 51.308(e)(2) would meet all regulatory requirements and thus be a viable approach for Texas, we proceeded to address the SO_2 BART requirement for Texas EGUs under a BART alternative consisting of an intrastate trading program in our October 2017 final rule. Subsequently, in response to a petition for reconsideration of the October 2017 rule requesting that the Administrator reconsider certain aspects of the FIP related to the intrastate trading program promulgated to address the SO_2 BART requirement for Texas EGUs, we decided that the October 2017 federal plan could benefit from further public comment.[2] As a result, in our August 27, 2018 proposed rule, we proposed to affirm our October 2017 final rule that approved a portion of the 2009 Texas Regional Haze SIP and promulgated the intrastate trading program FIP. In doing so, we provided the public with an opportunity to comment on all centrally relevant

[1] 82 FR 48324 at 48327.
[2] 83 FR 43586.

aspects of our Texas SIP approval and of the FIP that promulgated the Texas SO_2 Trading Program, including our proposal to affirm this intrastate trading program that caps emissions of SO_2 from certain EGUs in Texas and our determination that this program satisfies the requirements for a BART alternative. We provided a 60-day public comment period that ended on October 26, 2018, and held a public hearing on September 26, 2018. In our August 27, 2018 proposed rule we solicited comment on several issues, including our proposal to affirm the October 2017 FIP establishing an intrastate trading program capping emissions of SO_2 from certain EGUs in Texas and our determination that this program meets the requirements for an alternative to BART for SO_2. Following that notice and comment opportunity, the EPA determined that certain additional changes to the program not included in the August 2018 proposal could be warranted. Therefore, we issued a supplemental notice of proposed rulemaking on November 14, 2019, providing a 60-day comment period and a public hearing on December 9, 2019.[3] In the November 2019 supplemental proposal, we proposed to amend several provisions of the Texas SO_2 Trading Program with the overall objective of strengthening our finding in the October 2017 final rule,[4] which we proposed to affirm in August 2018,[5] that the Texas SO_2 Trading Program will result in SO_2 emission levels from Texas EGUs that are similar to or less than the emission levels from Texas EGUs that would have been realized had Texas continued to participate in the SO_2 trading program under CSAPR.[6] In finalizing our action affirming the intrastate trading program with amendments to certain provisions of the program, the EPA is addressing all in-scope comments we have received on both the August 2018 and November 2019 proposals, including, as discussed elsewhere in this document, comments regarding the lawfulness and basis for the intrastate trading program under the CAA and the Regional Haze Rule, and other related comments. Therefore, to the extent the commenter is alleging that the intrastate trading program in our October 2017 FIP was promulgated without following the public notice and comment procedures and public participation requirements set forth in 42 USC § 7607(d), the agency has cured any such alleged procedural defect.

We address elsewhere in this document comments comparing the anticipated SO_2 emissions reductions under the proposed source-specific BART determinations against the anticipated emissions reductions under the Texas SO_2 Trading Program, and comments contending that the Trading Program will allow an increase in SO_2 emissions above recent levels.

Comment: The record also demonstrates that EPA did not provide notice of its intrastate trading program. The January 2017 BART proposal did not contain the trading program EPA is proposing to affirm, nor did it contain a summary of the factual data and new legal interpretations on which EPA relied to justify the trading program. EPA did not discuss that it might consider adopting an intrastate trading program for Texas in lieu of the source-specific retrofit controls that the proposal set out in detail. *See* 82 FR 912. EPA's adoption of a new Trading Rule, which was not discussed in the proposal, does not qualify as a logical outgrowth of its January 2017 proposal.[45] The logical outgrowth doctrine applies where a rule merely clarifies its proposal, or where the agency put commenters on notice that it was considering approaches different from the proposal.[42] Here, the logical outgrowth doctrine does not apply because (i) the intrastate trading

[3] 84 FR 61850.
[4] 82 FR 48324, 48329.
[5] 83 FR 43591.
[6] 83 FR at 43599.

scheme is different than the January 2017 BART proposal, and (ii) EPA did not provide notice that it was considering an intrastate trading program instead of source-specific SO_2 emission limits.

Response: While it is true that the January 2017 BART proposal did not propose the intrastate trading program we finalized in the October 2017 final rule, in response to a petition for reconsideration of the October 2017 final rule requesting that the Administrator reconsider certain aspects of the FIP related to the Texas SO_2 Trading Program, we decided that important aspects of the October 2017 federal plan could benefit from further public comment.[7] Accordingly, in a notice published on August 27, 2018,[8] we proposed to affirm and thus opened for comment all centrally relevant aspects of the October 2017 rule.[9] The August 27, 2018 proposed rule presented the factual data and legal interpretations that we relied on to justify the Texas SO_2 Trading Program. Following the notice and comment opportunity on the August 2018 proposal, the EPA determined that certain additional changes to the program not included in that proposal could be warranted. Therefore, we issued a supplemental notice of proposed rulemaking on November 14, 2019, providing a 60-day comment period and a public hearing on December 9, 2019. After carefully considering all within-scope comments we received during the public comment period, we are finalizing our August 2018 proposal with the amendments to the Texas SO_2 Trading Program we proposed in November 2019, with some further minor revisions. The amendments to the Texas SO_2 Trading Program we are finalizing are designed to ensure that emission levels in each year under the intrastate trading program, and their aggregate impact on visibility, will be similar to or less than what would have been realized from Texas EGUs had Texas continued to participate in the SO_2 trading program under CSAPR.[10] Thus, these amendments help provide further support to our determination that the Texas SO_2 Trading Program meets the regulatory requirements for a BART alternative and is an appropriate approach for addressing Texas' SO_2 BART obligations.

The Clean Air Act contemplates circumstances in which the Agency may finalize rules under section 307(d) that reflect changes from proposal that a commenter is unable to comment on. The appropriate remedy in such circumstances is administrative reconsideration, such that the agency is able to provide the public the opportunity to comment on those matters (or "objections") that are of "central relevance" to the outcome of the rule. *See Wisconsin v. EPA*, 938 F.3d 303, 331-32 (D.C. Cir. 2019). The agency has now afforded that opportunity by our August 27, 2018 proposal that solicited comment on all centrally relevant aspects of the October 2017 final rule, including the Texas SO_2 Trading Program. Thus, we find that the commenter's concern that the adoption of the Texas SO_2 Trading Program was not a logical outgrowth of the January 2017 proposal has now been addressed in light of our August 27, 2018 proposal.

---

[7] 83 FR 43586.

[8] 83 FR at 43587.

[9] The only aspects of our October 2017 final rule that we did not reopen and thus did not solicit further comment on in our August 2018 proposal are the following: our October 2017 final determination that CSAPR addresses the NO_X BART requirements for EGUs in Texas; identification of BART-eligible sources; and our determination that the BART-eligible EGUs not participating in the Texas SO_2 Trading Program were not causing or contributing to visibility impairment and are therefore not subject to BART. We did not reopen and solicit further comment on these determinations from the October 2017 final rule because these aspects of our final rule were finalized as proposed in the January 2017 proposal with no changes.

[10] 83 FR 43592.

Comment: The Trading Rule cannot be characterized as a logical outgrowth of the December 2014 proposed rule. The BART provisions in the December 2014 proposed rule were abandoned due to *Homer City II*, and EPA otherwise took final action on that proposed rule in December 2015. *See* 81 FR at 298-307 (summary of final actions). Notably, when EPA opened up a public comment period following its promulgation of the January 2017 BART proposal, the agency did not invite comments on the December 2014 proposal. Instead, EPA sought comments on the proposal it had just released – i.e., the January 2017 proposed rule.

That the December 2014 proposal was part of a different rulemaking process is further confirmed by the fact that EPA did not include that proposal or any of the supporting technical analysis in this docket "on the date of the publication of the proposed rule," as required by the Clean Air Act. 42 USC § 7607(d)(3); *see also id.* § 7607(d)(4)(B)(ii) (all drafts of the proposed rule "shall be placed in the docket no later than the date of proposal of the rule"). Thus, if the Trading Rule had been a logical outgrowth of this earlier proposal (which it was not), the Rule would necessarily violate these Clean Air Act provisions.

EPA did not mention or seek comment on an intrastate trading program in the December 2014 proposal. Consequently, any logical outgrowth argument based on that proposal would be baseless.

Response: We disagree with the commenter that we attempted to characterize the Texas SO_2 Trading Program finalized in our October 2017 final rule as a logical outgrowth of the December 2014 proposed rule. We agree with the commenter that the December 2014 proposed rule was a part of a different rulemaking process, which is supported by the fact that we did not reference that proposed rule in developing the intrastate trading program that was finalized in October 2017. We also did not reference the December 2014 proposal in our August 2018 proposal to affirm the October 2017 final rule.

Comment: That members of industry submitted comments advocating for a trading program before EPA promulgated its Trading Rule has no bearing on whether the rule was a "logical outgrowth" of EPA's 2014 BART proposal. In the October 2017 final rule, EPA implied that its adoption of the Texas SO_2 Trading Program was justified because two Texas state agencies and two power companies filed comments advocating such an approach. 82 FR at 48,327. But such comments do not render the Trading Rule a "logical outgrowth" of EPA's 2014 proposal because EPA did not provide notice to the public that the agency itself was proposing or even considering a trading program. The D.C. Circuit has "made clear that the fact that some commenters actually submitted comments addressing the final rule is of little significance. The agency must itself provide notice of a regulatory proposal." Ass'n of Private Sector Colls. v. Duncan, 681 F.3d 427, 462 (D.C. Cir. 2012) (citation omitted) (internal quotation marks omitted).

Response: The EPA does not take the position that any comments on the January 2017 proposal could have or did provide a basis for treating the October 2017 final rule as a "logical outgrowth" of the December 2014 proposal, so the premise of this comment is incorrect. Furthermore, the case cited by commenter is inapposite as it does not arise under the CAA. The CAA contemplates circumstances in which the Agency may finalize rules under section 307(d) that reflect changes from proposal that a commenter is unable to comment on. The appropriate remedy,

when circumstances warrant, is administrative reconsideration, so that the agency is able to provide the public the opportunity to comment on those matters (or "objections") that are of "central relevance" to the outcome of the rule. *See Wisconsin v. EPA*, 938 F.3d 303, 331-32 (D.C. Cir. 2019). The commenter's concerns regarding logical outgrowth have now been addressed by our August 27, 2018 proposal that specifically solicited comment on all key aspects of the Texas SO_2 Trading Program.[11] We are finalizing that proposal with amendments to certain provisions of the Trading Program after considering and responding to all comments within scope that we received during the public comment periods for the August 2018 proposal and the November 2019 supplemental proposal.[12]

Comment: EPA cannot claim that the October 2017 trading program was a clarification of the January 2017 proposed rule. The January 2017 BART proposal required source-specific pollution limits based on the best available retrofit technology for each source. In order to adopt the trading program, EPA added pages of regulatory and explanatory text that was not included in the January 2017 BART proposal. See, e.g., 82 FR at 48353-61, 48363-80. The Trading Rule differs in substance from the BART proposal. EPA did not respond to many comments on the proposed source-specific rule because the comments were no longer relevant, and EPA therefore claimed they were not necessary to respond to. Id. at 48333. Instead of requiring limits for each of the relevant plants reflective of source-specific BART controls, which EPA anticipated would reduce SO_2 emissions by approximately 194,000 tons per year below recent levels, EPA is instituting an intrastate trading program in which the emissions cap is above the plants' 2017 emissions. It should be noted that the projected reduction of 194,000 tons of SO_2 emissions in the January 2017 BART proposal is relative to a 2011-2015 baseline. See BART FIP TSD at 2 n.7.

Response: We agree that our October 17, 2017 final rule that promulgated an intrastate trading program to address the SO_2 BART requirement for Texas EGUs cannot be characterized as merely a clarification of our January 4, 2017 proposed rule, nor has the Agency made this claim. Based on our consideration of comments we received on the January 2017 proposal urging us to consider as a BART alternative the concept of emission caps using CSAPR allocations, and based on our independent determination that a BART alternative approach under 40 CFR 51.308(e)(2) would meet all regulatory requirements and thus be a viable approach for Texas, we proceeded to address the SO_2 BART requirement for Texas EGUs under a BART alternative consisting of an intrastate trading program in our October 2017 final rule. In that final rule, EPA considered and responded to all relevant comments germane to the final rule and provided a record of decision-making for the final action. We note that some of the comments we received on the January 2017 proposal raised specific issues related to our proposed analyses for the source-specific BART emission limits we proposed. Given that those source-specific emission limits were not part of our final action, providing substantive responses to such comments was not required as they were no longer relevant.

As discussed elsewhere throughout this document, in response to a petition for reconsideration of the October 2017 final rule requesting that the Administrator reconsider certain aspects of the FIP related to the Texas SO_2 Trading Program, we provided an opportunity for

[11] 83 FR 43586.
[12] 84 FR 61850.

further public comment on all centrally relevant aspects of the Trading Program in a proposal published on August 27, 2018, and provided an opportunity for public comment on proposed amendments to certain provisions of the Trading Program in a supplemental proposal published on November 14, 2019. The amendments to the Texas SO_2 Trading Program we are finalizing in this final action, which include minor changes from what we proposed in the November 2019 proposal, are designed to ensure that emission levels in each year under the intrastate trading program, and their aggregate impact on visibility, will be similar to or less than what would have been realized from Texas EGUs from participation in the SO_2 trading program under CSAPR.[13] Thus, these amendments provide further support to our determination that the Texas SO_2 Trading Program meets the regulatory requirements for a BART alternative. We continue to find that the alternative is an appropriate approach for addressing Texas' SO_2 BART obligations.

We address elsewhere in this document comments contending that the Texas SO_2 Trading Program establishes an emissions cap that is higher than the 2017 emissions from the sources subject to the trading program.

Comment: EPA's lack of conducting notice and comment procedures is not cured by the presence in the record of comments against "relying on a BART alternative such as the Cross-State Air Pollution Rule trading program." While EPA should have considered these comments and responded to them in the context of the Trading Rule, NPCA and Sierra Club did not have an opportunity to comment on information that arose in the Trading Rule, such as the consideration of a trading program as a BART alternative to satisfy BART, the specifics of EPA's intrastate trading scheme or the rationale for adopting that scheme. NPCA and Sierra Club submitted comments on BART alternatives in response to industry comments—those comments were not based on, or responding to, any actual or implied proposal by EPA to adopt such an alternative. Responding to industry comments about industry's desire for a trading program is not a substitute for having notice and opportunity to comment on EPA's decision to adopt a trading program.

Response: EPA is not claiming that comments on the January 2017 proposal against the use of a BART alternative trading program "cured" the alleged notice concerns with the October 2017 final rule. The CAA contemplates circumstances in which the Agency may finalize rules under section 307(d) that reflect changes from proposal that a commenter is unable to comment on. The appropriate remedy, when circumstances warrant, is administrative reconsideration, so that the agency is able to provide the public the opportunity to comment on those matters (or "objections") that are of "central relevance" to the outcome of the rule. *See Wisconsin v. EPA*, 938 F.3d 303, 331-32 (D.C. Cir. 2019). The commenter's concerns regarding the lack of opportunity to comment on the specifics of the intrastate trading program promulgated in our October 17, 2017 final rule have now been addressed by our August 27, 2018 proposal that specifically solicited comment on all centrally relevant aspects of the intrastate trading program. We are finalizing that proposal with amendments to certain provisions of the Trading Program after considering and responding to all comments within scope that we received during the public comment periods for the August 2018 proposal and the November 2019 supplemental proposal.

[13] 83 FR 43592.

Comment: EPA did not address NPCA and Sierra Club's response to industry comments on a trading program. EPA violated the Clean Air Act's requirement that a rule "be accompanied by a response to each of the significant comments, criticisms, and new data submitted in written or oral presentations during the comment period." 42 USC § 7607(d)(6)(B). Specifically, EPA did not respond to NPCA and Sierra Club comments asserting that CSAPR is not better than BART. EPA had a duty to respond to such comments, especially given the Trading Rule's reliance on CSAPR to justify the Texas SO_2 Trading Program. EPA disregarded NPCA and Sierra Club comments as beyond the scope of its rulemaking. In failing to respond to these comments, EPA also reneged on its commitment to "provide written responses to all significant oral and written comments received on our [BART] proposal." 82 FR at 912.

Response: We provided responses in the October 2017 final rule to each of the in-scope significant comments, criticisms, and new data submitted in written or oral presentations during the comment period. We continue to hold the position that comments alleging that CSAPR is not better than BART were beyond the scope of our January 4, 2017 proposed rule, and they are beyond the scope of our final action now. We continue to believe that such comments raise issues that are appropriately addressed in the record of the 2012 CSAPR Better-than-BART Rule[14] and our 2017 affirmation of CSAPR Better-than-BART[15] In this action, the EPA is relying on the conclusion reached in those actions, without reopening them or having any intention to reopen them, that CSAPR remains a valid BART-alternative, including after taking account of geographic changes in the scope of CSAPR's coverage since 2012. In particular, because the Texas SO_2 Trading Program, as amended in this final action, has been designed to achieve SO_2 emission levels from Texas EGUs that are similar to or less than what would have been realized from Texas EGUs' participation in the CSAPR SO_2 trading program, we are making the determination that the Texas SO_2 Trading Program is an appropriate BART alternative for addressing Texas' SO_2 BART obligations. Because the Texas SO_2 Trading Program will result in SO_2 emissions from Texas EGUs similar to or less than emissions anticipated under CSAPR, this alternative is an appropriate approach for addressing Texas' SO_2 BART obligations and, in the context of the operation of the CSAPR ozone-season NO_X trading program and the operation of the CSAPR annual NO_X and SO_2 trading programs, will achieve greater reasonable progress than BART towards restoring visibility, consistent with the June 2012 "CSAPR Better-than-BART" determination[16] and September 2017 "CSAPR Better-than-BART affirmation finding."[17] As discussed in the final rule associated with this document, EPA has denied a petition for reconsideration of the 2017 CSAPR Better-than-BART affirmation that was based in part on an objection that the Texas program is not of sufficient stringency to satisfy the analysis for CSAPR. Although our determination in that action is also beyond the scope of this action here, it means that EPA here can continue to rely on the CSAPR "Better-than-BART" finding in conducting its analysis of whether the Texas intrastate trading program satisfies the requirements of 40 CFR 51.308(e)(2).

Comment: EPA proposes to "affirm" the Trading Rule to comply with the Clean Air Act's notice and comment requirements. EPA's August 2018 proposal to solicit comments on only some elements of the Trading Rule cannot cure the rule's procedural deficiencies because the opportunity

[14] 77 FR 33641.
[15] 81 FR 74504.
[16] 77 FR 33642.
[17] 82 FR 45481 (September 29, 2017).

for public comment is both insufficient and too late. At this point, the only legal remedy is for EPA to withdraw its Trading Rule and replace it with a compliant FIP.

The purpose of notice and comment is to provide the public with an opportunity to influence agency rulemaking. *See, e.g., U.S. Steel Corp. v. EPA*, 595 F.2d 207, 215 (5th Cir. 1979); *Nat'l Tour Brokers Ass'n v. U.S.*, 591 F.2d 896, 902 (D.C. Cir. 1978). This opportunity is meaningful only when rules remain in the formative stage and agencies are "more likely to give real consideration to alternative ideas." *U.S. Steel Corp.,* 595 F.2d at 214 (cited with approval in *U.S. v. Johnson*, 632 F.3d 912, 929 (5th Cir. 2011)); *see also Nat'l Tour Brokers Ass'n*, 591 F.2d at 902 (purpose of notice and comment is to ensure public can influence agency decision-making while rules are still in the "formative or 'proposed' stage").

Agencies do not provide an adequate opportunity to influence the rulemaking process when they solicit public comments on rules that they have already labeled "final." As the D.C. Circuit explained, agencies are likely to become "more close-minded and defensive" once they "put [their] credibility on the line in the form of 'final' rules." *Nat'l Tour Brokers Ass'n*, 591 F.2d at 902. In other words, once an agency has sunk costs into a rule and declared it final, the public loses any legitimate chance to influence that rule later on.

Because the opportunity to influence agency rulemaking lies at the core of notice and comment procedures, agencies cannot cure notice and comment defects by merely soliciting post-promulgation comments. *U.S. Steel,* 595 F.2d at 214 (EPA overlooked "crucial difference between comments before and after rule promulgation"); *McLouth Steel Prods Corp. v. Thomas*, 838 F.2d 1317, 1323 (D.C. Cir. 1988) ("Consideration of comments as a matter of grace is not enough."). Indeed, the Fifth Circuit rejected EPA's attempt to do precisely that in *U.S. Steel Corp. v. EPA*. There, the Fifth Circuit declared invalid an EPA rule that was promulgated without opportunity for public comment *despite* the fact that EPA later accepted comments and re-promulgated the rule. *U.S. Steel Corp.*, 595 F.2d at 214-15; *see also Johnson*, 632 F.3d at 929 ("Nor does accepting post-promulgation comments excuse compliance with APA procedures.").

When an agency seeks to save a rule that suffers from a notice and comment violation, that agency bears the burden of proving that the violation did not prejudice the public. *U.S. Steel Corp.*, 595 F.2d at 215; *see also Advocates for Highway & Auto. Safety v. Fed. Highway Admin.*, 28 F.3d 1288, 1292 (D.C. Cir. 1994) (Agency must make "compelling showing" that later notice cured defects in earlier notice). "Absence of such prejudice must be clear" for the violation to be considered "harmless" and the rule to be upheld. *U.S. Steel Corp.*, 595 F.2d at 215. When the rule at issue involves "complex regulatory decision[s]," notice and comment violations will rarely be harmless. *Johnson*, 632 F.3d at 932.

EPA cannot now cure the notice and comment defects in its Trading Rule because the opportunity for public comment is insufficient and too late. EPA finalized its Trading Rule on October 17, 2017. 82 FR 48324.

Response: We disagree with the commenter that the opportunity for public comment provided by our August 27, 2018 proposed rule is insufficient and too late. We proposed to affirm, and thus opened for comment, all centrally relevant aspects of our October 2017 SIP approval and

of the FIP that promulgated the Texas SO_2 Trading Program, including our proposal to affirm the intrastate trading program and our determination that this program satisfies the requirements for a BART alternative.[18] While the October 2017 final rule remained in effect when we proposed the August 27, 2018 proposal, in that proposal we also sought input on whether SO_2 BART would be better addressed through a source-by-source approach (source-specific BART), the October 2017 SO_2 trading program, or some other appropriate BART alternative. We stated in the August 27, 2018 proposal that if we were to decide to act pursuant to any comments we receive, we may initiate a new rulemaking process with a new proposed rule.[19] We provided a 60-day public comment period that ended on October 26, 2018 and held a public hearing on September 26, 2018, to receive public comment on our August 27, 2018 proposed rule. As a result of comments received during that comment period, we subsequently published and took further comment on a supplemental proposal in November 2019 to make changes to certain provisions of the Texas SO_2 Trading Program. Our November 2019 supplemental proposal and the amendments to the Trading Program we are finalizing in this action are evidence that our intent was to be open to further comment and that we ultimately gave real consideration and were influenced by the comments we received. Therefore, we disagree that we have not provided the public a fully adequate opportunity to influence the agency's rulemaking or that the public notice and opportunity to comment on our proposal was not meaningful.

In this respect, our actions are consistent with the requirements of the CAA under section 307(d). The CAA contemplates that in some circumstances the public may not be able to comment on important aspects of a final rule. The appropriate remedy is reconsideration to afford that opportunity for comment, and thus provide for administrative exhaustion prior to judicial review, with respect to all "centrally relevant" objections to the final rule. The August 2018 proposal afforded the opportunity to comment on all such objections with respect to the October 2017 final action. The CAA also contemplates that a final rule may remain in effect while the EPA undertakes that reconsideration. Even when the EPA is undertaking a mandatory reconsideration process under section 307(d)(7)(B), the statute provides that the rule "*may* be stayed" (emphasis added) by the Administrator or a court for a period not to exceed three months. The fact that the Texas SO_2 Trading Program remained in effect and went into operation during the pendency of the public notice and comment periods in this instance does not in any manner establish that the agency's notice and comment process on the August 2018 proposal to reaffirm the final rule is somehow infirm, or that any alleged defects in the procedure for the October 2017 final rule are somehow incurable.

Further, the cases cited by commenter are inapposite because they were not subject to the provisions of CAA section 307(d). In *U.S. Steel Corp. v. EPA*, 595 F.2d 207 (5th Cir. 1979), for instance, the court reviewed EPA's designation of nonattainment areas under section 107 of the Act. Designations under section 107 are not amongst the enumerated actions in subsection 307(d) of the Act that are governed by the administrative rulemaking procedures of that subsection, including the provision for mandatory reconsideration under section 307(d)(7)(B). Thus, the court in *U.S. Steel Corp.* was reviewing EPA's action under the Administrative Procedure Act. *See* 595 F.2d at 210. The Texas SO_2 Trading Program is a federal implementation plan promulgated under section 110(c) of the CAA, and thus subject to section 307(d), pursuant to section 307(d)(1)(B).

[18] 83 FR 43586 at 43590.
[19] 83 FR at 43587.

The court in *U.S. Steel* was not confronted with a circumstance in which the agency promulgated a final rule subject to the provisions of CAA section 307(d) that was substantially different from the proposal, but then took the necessary steps to provide the opportunity for comment on all centrally relevant issues, consistent with the process contemplated in section 307(d)(7)(B). Thus, the *U.S. Steel Corp.* case cited by the commenter is not relevant to our final action on the Texas SO_2 Trading Program here.

Comment: After EDF, NPCA, and Sierra Club filed a petition for reconsideration demonstrating that the Trading Rule did not follow notice and comment requirements, EPA could have, but has not yet rescinded or withdrawn the Trading Rule. The October 2017 Trading Rule remains in effect, even while it is open to public comments. Because EPA is only now requesting public comment on a rule that remains final, EPA has not afforded the public of any meaningful opportunity to influence the Trading Rule, and therefore EPA's current attempt to affirm the Trading Rule still violates the Clean Air Act's notice and comment provisions.

Response: In response to the petition for reconsideration referenced by the commenters, we decided that the October 2017 final rule could benefit from further public comment.[20] As a result, in our August 2018 proposed rule, we proposed to affirm our partial approval of the Texas Regional Haze SIP and our promulgation of the FIP and in doing so, we provided the public with an opportunity to comment on all centrally relevant aspects of the October 2017 final rule, including our promulgation of the Texas SO_2 Trading Program and our determination that this program satisfies the requirements for a BART alternative.[21] While the October 2017 final rule remained in effect when we proposed the August 27, 2018 proposal, in that proposal we also sought input on whether SO_2 BART would be better addressed through a source-by-source approach (source-specific BART), the October 2017 SO_2 trading program, or some other appropriate BART alternative. We stated in the August 27, 2018 proposal that if we were to decide to act pursuant to any comments we receive, we may initiate a new rulemaking process with a new proposed rule.[22] As a result of comments received during the comment period for the August 2018 proposal, we subsequently published and took further comment on a supplemental proposal in November 2019 to make changes to certain provisions of the Texas SO_2 Trading Program. Our November 2019 supplemental proposal and the amendments to the Trading Program we are finalizing in this action are evidence that our intent was to be open to further comment and that we ultimately gave real consideration and were influenced by the comments we received. Therefore, we disagree that we have not provided the public a fully adequate opportunity to influence the agency's rulemaking or that the public notice and opportunity to comment on our proposals was not meaningful.

The CAA contemplates that a final rule may remain in effect while the EPA undertakes reconsideration. Even when the EPA is undertaking a mandatory reconsideration process under section 307(d)(7)(B), the statute provides that the rule "*may* be stayed" (emphasis added) by the Administrator or a court for a period not to exceed three months. The fact that the Texas SO_2 Trading Program remained in effect and went into operation during the pendency of the public notice and comment periods in this instance does not in any manner establish that the agency's

[20] 83 FR 43586.
[21] 83 FR 43586 at 43590.
[22] 83 FR at 43587.

notice and comment process on the August 2018 proposal to reaffirm the final rule is somehow infirm, or that any alleged defects in the procedure for the October 2017 final rule are somehow incurable.

Comment: EPA's recent request for public comments does not provide the public with any real opportunity to influence EPA's decision-making. At this point in the rulemaking process, EPA has already finalized the Trading Rule. *See generally* 82 FR 48324. Indeed, EPA proposes to affirm its Trading Rule without soliciting comments on entire sections of its rule. 83 FR at 43586 (proposing to affirm its "final rule" and soliciting comments on only "certain aspects" of the rule). For all practical purposes, EPA's current efforts to cure its notice and comment violations are indistinguishable from those that the Fifth Circuit rejected in *U.S. Steel Corp.* In both cases, EPA sought public comments on a final rule long after the public had any real chance to influence EPA's decision. As the Fifth Circuit put it "[w]e doubt that . . . the Secretary would seriously consider [our] suggestions after the regulations are a Fait accompli." *U.S. Steel Corp.*, 595 F.2d at 214-15 (quoting *City of New York v. Diamond*, 739 F. Supp. 503. 517 (S.D.N.Y. 1974)).

Response: As noted in our August 27, 2018 proposal,[23] in response to a petition for reconsideration of the October 2017 rule requesting that the Administrator reconsider certain aspects of the FIP related to the Texas SO_2 Trading Program, we decided that important aspects of the October 2017 federal plan could benefit from further public comment.[24] Accordingly, in the August 27, 2018 proposal, we proposed to affirm certain aspects of the October 2017 final rule, and thus opened for comment the following elements, which effectively covered all of the central objections in the petition for reconsideration: 1) the proposal to affirm the October 2017 FIP establishing an intrastate trading program addressing emissions of SO_2 from certain EGUs in Texas as a BART alternative and the determination that this program satisfies the requirements for BART alternatives; 2) the proposal to affirm the finding that the BART alternatives in the October 2017 rulemaking to address SO_2 and NO_X BART at Texas' EGUs result in emission reductions adequate to satisfy the requirements of CAA section 110(a)(2)(D)(i)(II) with respect to visibility for the following NAAQS: 1997 8-hour ozone, 1997 $PM_{2.5}$ (annual and 24-hour), 2006 $PM_{2.5}$ (24-hour), 2008 8-hour ozone, 2010 1-hour NO_2, and 2010 1-hour SO_2 NAAQS; and 3) the proposal to affirm our October 2017 approval of Texas' SIP determination that no sources are subject to BART for PM. The August 2018 proposal also solicited comment on the specific issues of whether recent shutdowns of sources included in the trading program and the merger of two owners of affected EGUs should impact the allocation methodology for certain SO_2 allowances. In addition to soliciting comment on the above elements and aforementioned specific issues, the August 2018 proposal also invited comment on additional issues that could inform our decision making with regard to the SO_2 BART obligations for Texas. First, we sought input on whether SO_2 BART would be better addressed through a source-by-source approach (source-specific BART), the October 2017 SO_2 trading program, or some other appropriate BART alternative. Second, EPA requested comment on whether a SIP-based program would serve Texas better than a FIP. Third, we requested public input on whether and how the SO_2 trading program finalized in the October 2017 final rule addresses the long-term strategy and reasonable progress requirements for Texas.

[23] 83 FR at 43587.
[24] 83 FR 43586.

We find that the issues that EPA enumerated for reconsideration and solicitation of public comment covered all centrally relevant aspects of the October 2017 final rule. *See* 83 FR at 43587. As noted by the commenter, we recognize that there were certain aspects of our October 2017 final rule that we did not reopen and thus did not solicit further comment on in our August 2018 proposal. We did not reopen or solicit comment on the following: our October 2017 final determination that CSAPR addresses the NO_X BART requirements for EGUs in Texas; identification of BART-eligible sources; and our determination that the BART-eligible EGUs not participating in the Texas SO_2 Trading Program were not causing or contributing to visibility impairment, and were therefore not subject to BART. We did not reopen and solicit further comment on these determinations made in the October 2017 final rule because these aspects of our final rule were finalized as proposed in the January 2017 proposal after carefully considering and responding to all comments within scope that we received during that public comment period.

While the commenter correctly states that the October 2017 final rule remained in effect when we proposed the August 27, 2018 proposal, this does not mean the Agency was incapable of seriously considering the comments we received. In fact, as a result of comments we received during the comment period for the August 2018 proposal, we subsequently published and took further comment on a supplemental proposal in November 2019 to make changes to certain provisions of the Texas SO_2 Trading Program. Our November 2019 supplemental proposal and the amendments to the Trading Program we are finalizing in this action are evidence that our intent was to be open to further comment and that we ultimately gave real consideration and were influenced by the comments we received. Therefore, we disagree that we have not provided the public a fully adequate opportunity to influence the agency's rulemaking or that the public notice and opportunity to comment on our proposals was not meaningful.

2. Statutory Requirements for FIP Promulgation and Implementation

Comment: EPA cannot avoid issuing a FIP in hopes that Texas will one day issue a "better" plan. In its August 2018 proposed rulemaking, EPA seeks comments on "whether a SIP-based program would serve Texas better than a FIP."This inquiry is foreclosed because it would be unlawful and unreasonable for EPA to further delay issuance of a legally compliant FIP. *See Oklahoma v. EPA*, 723 F.3d 1201, 1223 (10th Cir. 2013) (EPA obligated to issue FIP despite SIP submission); *Nat. Res. Def. Council v. Browner*, 57 F.3d 1122, 1127 (D.C. Cir. 1995) (EPA obligation to issue FIP "remains in place until the state submits *and gets approved* its own SIP") (emphasis added).

Section 110 of the Clean Air Act provides that EPA "*shall* promulgate a FIP within 2 years" after a state fails to submit a SIP or EPA disapproves the SIP, unless EPA first approves a corrected SIP before the two-year deadline. 42 USC § 7410(c)(1) (emphasis added). Courts applying this statutory language have found that EPA's duty to issue a FIP is nondiscretionary. *See, e.g.*, *Browner*, 57 F.3d at 1124, 1127 (FIP promulgation is mandatory); *Oklahoma*, 723 F.3d at 1223 (same); *Coal. for Clean Air v. S. Cal. Edison*, 971 F.2d 219, 223 (9th Cir. 1992) (the Clean Air Act creates a "mandatory obligation to promulgate a FIP" when a SIP is rejected). Unless EPA has approved a corrected state plan, EPA's failure to issue a federal plan by the two-year deadline is an abdication of EPA's duty under the Act. *See Am. Lung Ass'n v. Reilly*, 962 F.2d 258, 263 (2d

Cir. 1992) (When statute "sets forth a bright-line rule for agency action . . . there is no room for debate—congress has prescribed a categorical mandate that deprives EPA of all discretion over the timing of its work.").

The submission of a SIP does not toll EPA's two-year deadline to issue a FIP. The Tenth Circuit made this point in *Oklahoma v. EPA*, stating that the "mere *filing* of a SIP" does not eliminate EPA's duty to promulgate a FIP because such a rule would allow states to "forestall the promulgation of a FIP by submitting one inadequate SIP after another." 723 F.3d at 1223-24 ("appropriate remedy" when EPA fails to promulgate a FIP within the two-year deadline is an "order *compelling* agency action"). Thus, even if Texas submitted a SIP tomorrow, EPA still would be obligated to submit a compliant FIP today, because the two-year deadline for EPA to issue a FIP has already passed.

Response: We agree that we had a mandatory duty to address the BART requirements for Texas EGUs. Contrary to statements made by the commenter, we did promulgate a FIP. Our October 2017 final rule that addressed the BART requirements in Texas fulfilled our mandatory duty to issue a FIP and remains in place. While EPA solicited comment on all centrally relevant aspects of the August 2018 proposal to reaffirm the October 2017 final rule, such as whether a SIP-based program would serve Texas better than a FIP, our proposal also noted that should we decide to act on any input received, we would publish another proposed rule to seek further public input. As a result of comments received on that proposal, we subsequently published and took further comment on a supplemental proposal in November 2019 to make changes to certain provisions of the Texas SO_2 Trading Program. However, the Texas SO_2 Trading Program remained in effect and went into operation during the pendency of the public notice and comment periods for these proposals. The FIP promulgating the Texas SO_2 Trading Program remains in effect, with amendments to certain provisions of the trading program being finalized after careful consideration of all comments we received on the August 2018 proposal and November 2019 supplemental proposal.

Comment: The fact that Texas might someday submit a SIP has no bearing on EPA's statutory duty to issue a compliant FIP today. When an agency fails to perform a nondiscretionary duty, the agency bears a "heavy burden" to demonstrate why it should be excused from performance. *Ala. Power Co. v. Costle*, 636 F.2d 323, 359 (D.C. Cir. 1980) (citing *Nat. Res. Def. Council v. Train*, 510 F.2d 692, 712-13 (D.C. Cir. 1974)). That burden is "especially heavy" when an agency has ignored its nondiscretionary duty for several years. *Sierra Club v. Johnson*, 444 F. Supp. 2d 46, 53 (D.D.C. 2006) (internal quotations omitted); *see also Texas*, 829 F.3d at 430 ("EPA may not use its own delay as an excuse" for failing to comply with the Clean Air Act). EPA cannot satisfy such a heavy burden here as there is no reasonable justification for the agency's delay in ensuring that the haze reductions required by the Clean Air Act actually occur.

EPA first determined in 2009 that Texas failed to submit an adequate SIP when the state missed the statutory SIP submission deadline. 74 FR at 2393 (noting deadline as 2007). This determination started the clock on EPA's obligation to issue a FIP within two years. *Texas,* 829 F.3d at 414 (EPA's 2009 finding that Texas missed its SIP submission deadline "triggered a two-year deadline for EPA to promulgate a [FIP]"); *Oklahoma*, 723 F.3d at 1205 (same). That deadline expired in 2011 and EPA still has failed to promulgate a lawful FIP in direct contravention of its

statutory duty. The fact that Texas might someday submit a SIP has no bearing on EPA's statutory duty to issue a compliant FIP today. *Id.* at 1223 ("[T]he mere *filing* of a SIP by Oklahoma does not relieve the EPA of its duty [to issue a FIP].") Because EPA did not approve a Texas SIP before 2011, EPA is required to issue a FIP. *See Browner*, 57 F.3d at 1124 ("FIP promulgation can be avoided only if EPA has actually approved the state's SIP submission.").

Response: We agree that we had a mandatory duty to address the BART requirements for Texas EGUs. Contrary to statements made by the commenter, we did promulgate a FIP. Our October 2017 final rule fulfilled our mandatory duty to address the BART requirements for Texas EGUs through the promulgation of a FIP. This FIP continues to remain in place, with certain amendments to the Texas SO_2 Trading Program being finalized after careful consideration of all comments we received on our August 2018 proposal and November 2019 supplemental proposal.

Comment: In violation of the Clean Air Act, the Trading Rule provides that the mere submission of a SIP would suspend key parts of the rule. The Trading Rule is unlawful because it allows EPA to suspend key provisions of the intrastate trading program if Texas submits a SIP revision (*i.e.*, in situations where the SIP revision has been submitted for review, but not approved by EPA). The FIP provides that the "Administrator may delay recordation of Texas SO_2 Trading Program allowances for the specified control periods if the State of Texas submits a SIP revision before the recordation deadline." 40 CFR § 97.921(a). Similarly, the "Administrator may delay recordation of the Texas SO_2 Trading Program allowances for the applicable control periods if the State of Texas submits a SIP revision by May 1 of the year of the applicable recordation deadline under this paragraph." Id. § 97.921(b).

These provisions in 40 CFR § 97.921(a) and (b) are arbitrary and capricious and otherwise unlawful for at least three reasons. First, by permitting the submittal of a SIP to suspend the central component of the Trading Rule, these provisions are counter to the Act's rulemaking requirements. The Clean Air Act prescribes the process for review of a SIP or SIP revision. If a state submits a SIP, EPA must determine within six months whether the submission is complete. 42 USC § 7410(k)(1)(A). If the plan is complete, EPA then has one year to determine whether the plan comports with legal requirements and to either approve or disapprove the plan, in whole or in part. *Id.* EPA may not approve a plan "if the revision would interfere with any. . . applicable requirement" of the Clean Air Act. *Id.* § 7410(l). The promulgation of a SIP, as well as EPA's action on a SIP, are subject to the Act's rulemaking requirements, *id.* § 7607(d)(1)(B), including notice and an opportunity for public comment, *id.* § 7607(d)(2)-(6). The process is no different if a SIP has been proposed to replace a previously enacted FIP; under section 7407(d)(1)(B), EPA must go through the Clean Air Act's rulemaking procedures. No provision of the Act allows the submission of a SIP to suspend operation of a FIP.

Second, assuming, *arguendo*, that the Texas SO_2 Trading Program were a permissible BART alternative, suspension of the program would mean that there is no functioning BART alternative in place. This would be a clear violation of 42 USC §7491(b)(2)(A) and 40 CFR § 51.308(e), both of which require a plan implementing SO_2 BART.

Third, the FIP promulgating the Texas SO_2 Trading Program does not include any provision that would resume the intrastate trading program if the State's proposed SIP were

found to be deficient. In other words, these provisions would allow the trading program to be suspended indefinitely simply because the State submitted a SIP. This violates the Clean Air Act and is arbitrary and capricious.

Response: We appreciate the commenter's input on whether the submission of a SIP by the state should affect the implementation of the trading program's allowance recordation provisions. After considering this comment, we proposed in our November 2019 supplemental proposal to modify the Texas SO_2 Trading Program recordation provisions at 40 CFR 97.921 to make clear that submission of a SIP revision by the state does not cause any change in implementation of those provisions unless and until the SIP revision is approved by EPA. We are adopting that proposed modification in this final action. We are taking final action to revise 40 CFR 97.921(a), (b), and (c) of the Texas SO_2 Trading Program to condition any exceptions to scheduled allowance recordation activities on Texas' submission *and* EPA's approval of a SIP revision, rather than just on Texas' submission of a SIP revision. These revisions will ensure that the program remains fully operational unless it is replaced by a SIP revision that is approved by EPA as meeting SO_2 BART requirements for the covered BART-eligible units.

Comment: EPA's request for comments on whether a SIP would prove preferable to a FIP is irrelevant because EPA cannot lawfully or reasonably further delay issuance of a FIP. Both Congress and the courts have made clear that EPA's duty to promulgate a FIP within two years of a state's failure to submit a sufficient SIP is non-discretionary. That deadline has passed and EPA has not promulgated a compliant FIP, proposing instead to "affirm" its procedurally and substantively defective Trading Rule. EPA should withdraw the Trading Rule and issue a compliant FIP for Texas.

Response: By seeking comment on whether a SIP would be preferable to a FIP, we did not intend to suggest that we would withdraw the FIP while Texas prepares a SIP. While EPA solicited comment on a number of policy related issues, our proposal also noted that should we decide to act on any input received, we would publish another proposed rule to seek further public input. Contrary to statements made by the commenter, we did promulgate a FIP. Our October 2017 final rule fulfilled our mandatory duty to issue a FIP and that FIP remains in place with amendments to certain provisions of the Texas SO_2 Trading Program being finalized after careful consideration all comments we received on our August 2018 proposal and November 2019 supplemental proposal.

Comment: The TCEQ notes that it may replace the SO_2 trading program FIP with a state-run trading program in the upcoming regional haze state implementation plan (SIP) revision for the second planning period. However, any commitments made in the 2017 Memorandum of Agreement (MOA) between the TCEQ and the EPA are no longer applicable. The EPA noted in the proposed action published on August 27, 2018 that Texas and the EPA entered into an agreement via a MOA that the TCEQ would replace the FIP with a SIP-based trading program. However, the EPA stated that TCEQ has not met its commitment to provide a SIP and that the EPA had little choice but to continue the FIP (83 FR 43587). While the TCEQ agrees that the EPA must continue the FIP until such time as a SIP is approved to replace the FIP, the TCEQ does not agree that the MOA remains a binding commitment on the TCEQ. The TCEQ may choose to replace the FIP with a state-run trading program as an alternative to source-specific BART for EGUs but is under no legal obligation to do so.

The MOA was submitted to the United States District Court for the District of Columbia as part of a request by the EPA for more time to finalize an action on BART in Texas. The MOA established a schedule for the TCEQ to adopt and submit a BART SIP to EPA for approval rather than the EPA finalizing a FIP. The court did not grant the extension and the EPA promulgated the trading program BART alternative FIP in September 2017. As such, any commitment made by the TCEQ in the MOA is no longer applicable. Additionally, petitions for review were filed two months after promulgation of the FIP. This created uncertainty regarding whether the EPA would revisit the final FIP in response to these petitions as this proposal confirms.

Given the unknown future of the FIP trading program, it became apparent to the TCEQ that moving forward with a SIP revision based on the FIP would be premature. The TCEQ anticipates that review of a possible state trading program alternative to replace the FIP would be appropriate during development of the second planning period regional haze SIP revision that is due to the EPA in July 2021.

Response: We appreciate the State's comments regarding the MOA. The applicability of the MOA is not relevant to this action. While EPA is continuing to implement the trading program, we continue to work with TCEQ to address the requirements for the first and second implementation periods.

Comment: We received comments from two EGU owners responding to whether a SIP-based program would serve Texas better than a FIP. AEP generally supports a SIP approach for compliance with visibility and interstate transport state obligations, but in this proposal, AEP supports the FIP approach. NRG Texas believes SIPs are more appropriate to address regional haze. AEP supports the TCEQ adopting its own trading program similar to EPA's program and using this as a platform for meeting the requirements of reasonable progress during the second planning period.

Response: We appreciate the commenters sharing their perspectives.

3. Appropriateness of the Texas SO2 Trading Program vs. Source-Specific BART FIP

Comment: EPA has not provided a rational basis for abandoning the source-specific BART proposal it issued in January 2017. EPA has not identified any errors in that proposal, nor has EPA explained why it believes the Texas SO_2 Trading Program is preferable to the source-specific BART proposal.

Source-specific BART is the only option that EPA has proposed that would satisfy the requirement that each haze plan contain emissions limits that make reasonable progress. Source-specific BART would dramatically reduce the SO_2 emissions that contribute to haze. In contrast, the Texas SO_2 Trading Program would make no progress toward eliminating visibility impairment because the trading program authorizes sources to increase emissions relative to actual emissions in 2015, 2016, and 2017.

Response: While EPA proposed source-specific BART emission limits in the January 2017 proposal, under the notice and comment rulemaking process, EPA may decline to finalize a proposed rule or may finalize a rule with changes from proposal based on consideration of additional information received during the comment period. Additionally, EPA may also propose a rule and rationale that differs from its original proposal and does not have an obligation to finalize the initial proposed rule as is the case here. We also note that the Regional Haze Rule does not require source-specific BART determinations, as the regulations at 40 CFR 51.308(e)(2)-(5) allow states, or EPA if promulgating a FIP, to adopt a BART alternative in place of source-specific BART provided that all applicable regulatory requirements related to the BART alternative are satisfied. EPA's obligations are to promulgate a final rule that meets the requirements of the CAA and the Regional Haze Rule, consider and respond to all relevant comments to the final rule, and provide a record of decision-making for its action that is not arbitrary and capricious.

In this case, informed by comments we received during the public comment period for the January 2017 proposal from the Texas Commission on Environmental Quality (TCEQ), the Public Utility Commission of Texas (PUC), Luminant, and American Electric Power (AEP), urging us to consider as a BART alternative the concept of emission caps using CSAPR allocations,[25] and based on our independent determination that a BART alternative approach under 40 CFR 51.308(e)(2) would meet all statutory and regulatory requirements and thus be viable for Texas, we did not finalize the source-specific BART emission limits we had proposed and instead we addressed the SO_2 BART requirement for Texas EGUs under a BART alternative consisting of an intrastate trading program in our October 2017 final rule. Having made the determination (in part through reliance on the analysis of CSAPR as a BART alternative as explained elsewhere in the record) that the BART-alternative program satisfies 40 CFR 51.308(e)(2) under the clear weight of evidence test of 40 CFR 51.308(e)(2)(i)(E), EPA need not further explain or justify the program based on a comparison of emission reductions, costs, or visibility improvements that may have been potentially achieved had EPA finalized the source-specific controls we proposed in January 2017. Furthermore, the statute and applicable regulations do not mandate that states, or EPA when it is promulgating a FIP, reach a particular conclusion or outcome regarding cost-effectiveness or emission reductions when applying the five-factor BART analysis, or in designing a BART-alternative program under 40 CFR 51.308(e).

With regard to the statement that the Texas SO_2 Trading Program authorizes sources to increase emissions relative to actual emissions in 2015, 2016, and 2017, and the contention that it would thus make no progress toward eliminating visibility impairment, we disagree that the Texas SO_2 Trading Program would authorize greater pollution than the status quo given that the Trading Program now contains an assurance level limiting SO_2 emissions from Texas EGUs participating in the Trading Program where no prior SO_2 emission limits under the regional haze program existed for these sources. The status quo "authorizes" much higher emissions (due to there being no enforceable program at all and the only limitations being the facilities' current permit limits), even if actual emissions happened to be below that level.

[25] 82 FR 48324 at 48327.

We also note that the Texas SO_2 Trading Program, with the added assurance level we are finalizing in this action, also achieves significantly lower emissions relative to the baseline period, using 2002 as the baseline.[26] These emission reductions that are secured by the Trading Program contribute to improvements in visibility from the baseline period for the first planning period and are permanent and enforceable as part of the long-term strategy for Texas. As shown in Table 1, the total combined SO_2 emissions from Texas EGUs participating in the Texas SO_2 Trading Program were 515,526 tons in 2002. The combined actual SO_2 emissions from all Texas EGUs (both those in the Texas SO_2 Trading Program and those not in the program) were 562,516 tons in 2002.[27] By comparison, the Texas SO_2 Trading Program budget is 238,395 SO_2 tons (plus a Supplemental Allowance Pool budget of 10,000 tons). Thus, for the covered units, the program achieves average annual emissions from the covered units of 248,395 tons. Compared with the 2002 baseline for these units, the program achieves 267,131 tons of reductions.

When we account for Texas units that were in CSAPR but not in the current program, we see a similar result using a conservative assumption about those units' emissions going forward. (As we explained in our supplemental proposal, our comparison of the Texas program to CSAPR should take account of emissions from these units.[28]) For illustrative purposes, in this comparison we will also use the higher figure of the new assurance level we are finalizing in this action (i.e., 255,083 SO_2 tons per year) for the Texas program rather than the average annual allocation. In our final analysis, as discussed elsewhere in this document and in Section III.A.2 of the preamble of the final rulemaking associated with this document, we are making the conservative assumption that future combined SO_2 emissions for units that were in the CSAPR program but not covered by the Texas SO_2 Trading Program is 35,000 tons. When our conservative assumption of 35,000 tons is added to the highest annual SO_2 emissions anticipated from units under the Texas SO_2 Trading Program, 255,083 tons per year (i.e., the assurance level for the program), the total figure is 290,083 tons per year. A comparison of these figures reveals that the combined actual SO_2 emissions from all Texas EGUs in 2002 during the baseline period (562,516 tons) were considerably higher than the highest annual SO_2 emissions anticipated from all Texas EGUs anticipated from operation of the Texas SO_2 Trading Program (290,083 tons), including the CSAPR units not included in that program – a difference of 272,433 tons. The emission reductions that are secured by the Trading Program contribute to improvements in visibility from the baseline period for the first planning period and are permanent and enforceable as part of the long-term strategy for the State of Texas.

Table 1. 2002 SO_2 Emissions from Texas EGUs Subject to the FIP SO_2 Trading Program†

Owner/Operator	Units	SO_2 Emissions (tons)
AEP	Welsh Power Plant Unit 1	12,259
	Welsh Power Plant Unit 2	11,937
	Welsh Power Plant Unit 3	11,584

[26] The Regional Haze Rule provides that the baseline period for the first planning period is 2000-2004. *See* 40 CFR 51.308(d)(2)(i); *see also id.* 51.308(e)(2)(iv) (BART alternative emission reductions must be surplus to required CAA emission reductions as of the baseline date of the SIP).

[27] See Excel spreadsheet file "Texas EGU 2002 SO2 Emissions.xlsx," which is found in the docket for this final rulemaking.

[28] 84 FR at 61853.

	H W Pirkey Power Plant Unit 1	19,476
	Wilkes Unit 1	1
	Wilkes Unit 2	2
	Wilkes Unit 3	3
CPS Energy	J T Deely Unit 1	9,936
	J T Deely Unit 2	11,577
	Sommers Unit 1	1
	Sommers Unit 2	2
LCRA	Fayette/Sam Seymour Unit 1	13,617
	Fayette/Sam Seymour Unit 2	16,401
Vistra	Coleto Creek Unit 1	14,288
	Big Brown Unit 1	43,413
	Big Brown Unit 2	34,448
	Martin Lake Unit 1	24,837
	Martin Lake Unit 2	22,539
	Martin Lake Unit 3	19,023
	Monticello Unit 1	28,643
	Monticello Unit 2	34,700
	Monticello Unit 3	22,976
	Sandow Unit 4	23,330
	Stryker ST2	43
	Graham Unit 2	23
NRG	Limestone Unit 1	17,009
	Limestone Unit 2	13,830
	W A Parish Unit WAP4	4
	W A Parish Unit WAP5	21,310
	W A Parish Unit WAP6	18,006
	W A Parish Unit WAP7	18,459
Xcel	Tolk Station Unit 171B	12,703
	Tolk Station Unit 172B	12,171
	Harrington Station Unit 061B	9,197
	Harrington Station Unit 062B	8,927
	Harrington Station Unit 063B	8,844
El Paso Electric	Newman Unit 2	1
	Newman Unit 3	1
	Newman Unit **4	1
	Newman Unit **5	1
Total Combined 2002 SO_2 Emissions		515,526

† Based on 2002 Clean Air Markets Division (CAMD) data.

Further, the purpose of the Texas SO_2 Trading Program is not to achieve some particular quantum, much less a maximum quantum, of emission reductions as compared to some reference point for "current" emission levels. In fact, whether the Trading Program allows for a potential increase in emissions from recent or current emission levels is not the relevant question under the BART alternative provisions of the Regional Haze Rule. In order to satisfy the BART alternative test of 40 CFR 51.308(e)(2)(i)(E), the alternative must, on the clear weight of evidence, achieve greater reasonable progress in visibility improvements than would be achieved through the installation and operation of BART at the covered sources. This test calls for a comparison in stringency between two regulatory regimes, BART and the BART alternative. The Texas SO_2 Trading Program is modeled on and set at a stringency level comparable to CSAPR in Texas, such that the CSAPR Better-than-BART analysis may be relied upon in determining the adequacy of this program. As discussed in Section III.A.2 of the final rulemaking associated with this document, we find that we have satisfied the BART alternative test of 40 CFR 51.308(e)(2)(i)(E). Whether actual emissions may increase or decrease from some particular historical level under the program is immaterial so long as emissions remain below the level requisite to make the "greater reasonable progress" showing.

With regard to the commenter's statement that source-specific BART controls would be the only option that would satisfy the requirement that each haze plan contain emissions limits that make reasonable progress, as explained in our final action and throughout this document, we are affirming our determination that the Texas SO_2 Trading Program satisfies the requirements for a BART alternative at 40 CFR section 51.308(e)(2) and appropriately addresses BART for SO_2 for Texas sources. However, we are not finalizing a position that the Texas SO_2 Trading Program is designed to meet the reasonable progress requirements. BART is one component of the long-term strategy established to make progress towards the goal of natural visibility conditions, and while the Texas SO_2 Trading Program will thus contribute to meeting Texas' reasonable progress requirements, the necessary analysis, and potentially, emission controls, to fully address reasonable progress for Texas will take place in a separate, future action.

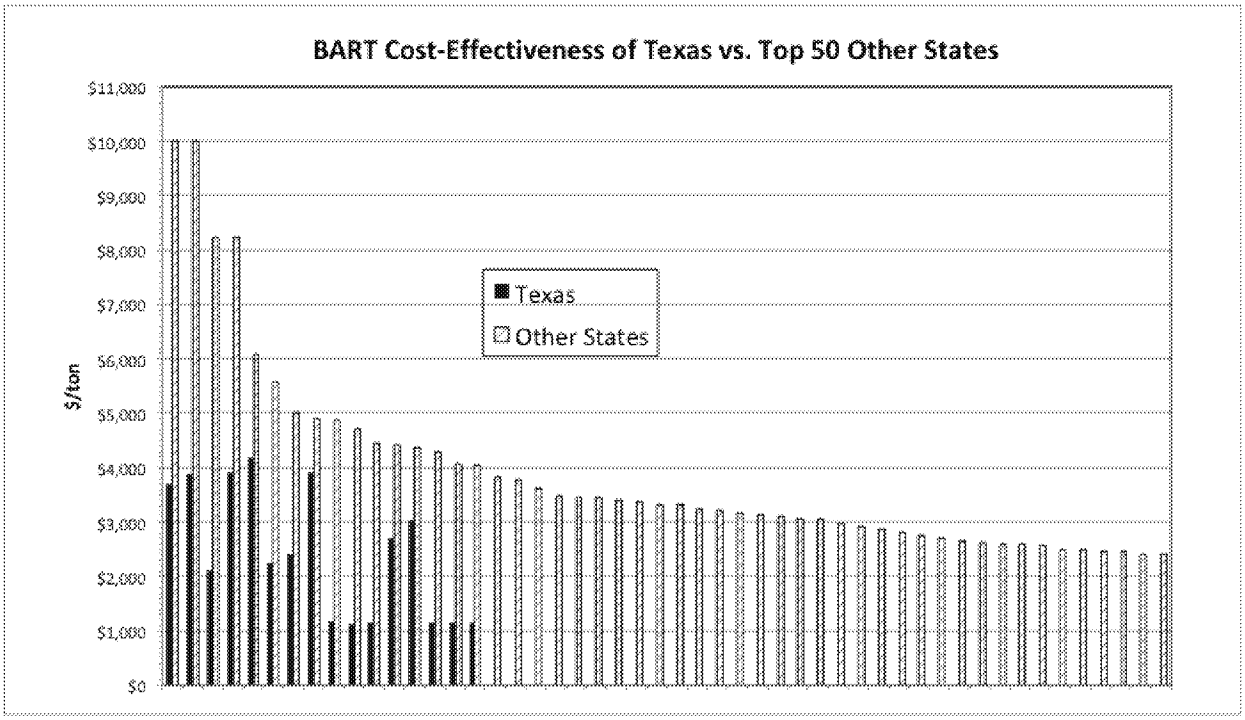
Comment: EPA has not offered any reasonable basis for scrapping the January 2017 proposal's strong, source-specific SO_2 emission limits in favor of an intrastate emissions trading program that would allow emissions to increase. On January 4, 2017, EPA proposed source-by-source BART determinations based on analyses of the five statutory BART factors. The 2017 BART proposal was supported by, *inter alia*, detailed, source-specific analyses of the cost of SO_2 controls, the level of control achievable by different technologies, estimated emissions reductions, and projected visibility improvement from operation of such controls. *See generally* BART FIP TSD; *see also* 82 FR at 921-45. The administrative record, which we hereby incorporate by reference, thoroughly demonstrates that the 2017 BART proposal would achieve the haze reductions required by law. It would do so through the installation of SO_2 controls— new or upgraded scrubbers—that are in wide use in the power plant industry, as EPA has acknowledged. In addition to being technically feasible, the source-specific controls that EPA proposed would be cost-effective.

As described above, these controls are in wide use and have been retrofitted to a variety of boiler types and plant configurations. We therefore see no technical infeasibility issues and believe

that limestone wet FGD and lime SDA should be considered as potential BART controls for all of the unscrubbed coal-fired BART-eligible units.

The figure below compares the cost-effectiveness of EPA's proposed January 4, 2017 source-by-source BART determinations for Texas to the cost-effectiveness of the top 50 least cost-effective (highest $/ton) previous BART determinations. Each bar represents one BART determination required by either a SIP or a FIP. This comparison indicates that the cost-effectiveness of the source-by-source BART determinations EPA proposed for Texas were well within the range of previously approved BART determinations by EPA and the states.

Figure 1. Cost-Effectiveness of Proposed, Source-Specific BART Controls for Texas Sources Compared to Other BART Determinations



Response: While EPA proposed source-specific BART emission limits in the January 2017 proposal, under the notice and comment regulatory process, EPA may decline to finalize a proposed rule or may finalize a rule with changes from proposal based on consideration of additional information received during the comment period. Additionally, EPA may also propose a rule and rationale that differs from its original proposal and does not have an obligation to finalize the initial proposed rule as is the case here. We also note that the Regional Haze Rule does not require source-specific BART determinations, as the regulations at 40 CFR 51.308(e)(2)-(5) allow states, or EPA if promulgating a FIP, to adopt a BART alternative in place of source-specific BART provided that all applicable regulatory requirements related to the BART alternative are satisfied. EPA's obligations are to promulgate a final rule that meets the requirements of the CAA and the Regional Haze Rule, consider and respond to all relevant comments to the final rule, and

provide a record of decision-making for its action that is not arbitrary and capricious. In this case, informed by comments we received from the Texas Commission on Environmental Quality (TCEQ), the Public Utility Commission of Texas (PUC), Luminant, and American Electric Power (AEP), asking us to consider as a BART alternative the concept of emission caps using CSAPR allocations,[29] and based on our independent determination that a BART alternative approach under 40 CFR 51.308(e)(2) would meet all statutory and regulatory requirements and thus be viable for Texas, we did not finalize the source-specific BART emission limits we had proposed and instead we addressed the SO_2 BART requirement for Texas EGUs under a BART alternative consisting of an intrastate trading program in our October 2017 final rule. Having made the determination (in part through reliance on the analysis of CSAPR as a BART alternative as explained elsewhere in the record) that the BART-alternative program satisfies 40 CFR 51.308(e)(2) under the clear weight of evidence test of 40 CFR 51.308(e)(2)(i)(E), EPA need not further explain or justify the program based on a comparison of emission reductions, costs, or visibility improvements that may have been potentially achieved had EPA finalized the source-specific controls we proposed in January 2017. Furthermore, the statute and applicable regulations do not mandate that states, or EPA when it is promulgating a FIP, reach a particular conclusion or outcome regarding cost-effectiveness or emission reductions when applying the five-factor BART analysis, or in designing a BART-alternative program under 40 CFR 51.308(e).

Comment: EPA has not questioned the validity of any of the source-specific BART analyses. EPA has not identified any errors in the BART proposal, and has not responded to certain comments submitted on the January 2017 proposal. Nor has EPA attempted to demonstrate that the intrastate trading program would achieve greater reasonable progress than the January 2017 source-specific BART proposal. To the contrary, EPA avoids making comparisons between the source-specific BART proposal and the intrastate trading scheme.

EPA tries to downplay the significance of its BART proposal, stating its disagreement with the notion "that merely proposed determinations of BART in the context of a possible FIP set a stringency threshold for a demonstration set forth in a hypothetical SIP," and arguing that "[p]roposed determinations are only proposals." 82 FR at 48336. In doing so, however, the agency ignores the fact that the BART proposal's technical analyses were not questioned at all in the Trading Rule. EPA cannot simply sweep away the exhaustive findings it made in the proposed BART rule. *See, e.g.*, *U.S. Sugar Corp. v. EPA*, 830 F.3d 579, 650 (D.C. Cir. 2016) (holding that "[b]ecause its justifications for the final rule contradict earlier findings, the EPA must provide some reasoning to explain why its final decision runs counter to the evidence before the agency") (citations omitted).

Instead, EPA's only proffered rationale for finalizing an intrastate trading program rather than the proposed source-specific BART determinations is that the trading program was suggested by some commenters, including the State of Texas, and EPA gave "particular weight" to the State's views. EPA has not explained why it is appropriate to give greater weight to some comments than to others— i.e., why the agency followed the State's and Luminant's suggestion while ignoring other commenters' recommendation to finalize the January 2017 BART proposal. *See, e.g.*, NPCA/SC Comments at 26-40 (explaining why EPA should finalizeits source-specific

[29] 82 FR 48324 at 48327.

determinations for SO_2 BART). EPA received comments from all sides of this issue, so it has a duty to explain why it acted on some comments and rejected others.

Response: EPA's obligations are to promulgate a final rule that meets the requirements of the Clean Air Act and the Regional Haze Rule, consider and respond to all relevant comments, and provide a record of decision-making for its action that is not arbitrary and capricious. We find that we have met these requirements in this case. While EPA was informed by comments we received from TCEQ, the Public Utility Commission of Texas, Luminant, and American Electric Power, asking us to consider as a BART alternative the concept of emission caps using CSAPR allocations,[30] our final rule was ultimately based on our independent determination that a BART alternative approach under 40 CFR 51.308(e)(2) would meet all statutory and regulatory requirements and thus be viable for Texas. Thus, we did not finalize the source-specific BART emission limits we had proposed and instead we addressed the SO_2 BART requirement for Texas EGUs under a BART alternative consisting of an intrastate trading program in our October 2017 final rule. We disagree that we gave greater weight to some comments than to others. In the October 2017 final rule, EPA considered and responded to all comments germane to the final rule and provided a record of decision-making for the final action. We note that some of the comments we received on the January 2017 proposal raised specific issues related to the analyses for the source-specific BART emission limits we proposed, and those comments were no longer relevant once we determined not to promulgate the proposed source-specific BART emission limits in our final action. Therefore, a response to those comments was unnecessary. We also considered comments we received on the January 2017 proposal that supported finalization of source-specific BART controls. We explained in our October 2017 proposal, in the final action associated with this document, and throughout this document why we did not finalize the source-specific BART emission limits we proposed in January 2017.

Having made the determination (in part through reliance on the analysis of CSAPR as a BART alternative as explained elsewhere in the record) that the BART-alternative program satisfies 40 CFR 51.308(e)(2) under the clear weight of evidence test of 40 CFR 51.308(e)(2)(i)(E), EPA need not further explain or justify the Texas SO_2 Trading Program based on a comparison of emission reductions, costs, or visibility improvements that may have been potentially achieved had EPA finalized the source-specific controls we proposed in January 2017. The statute and applicable regulations do not mandate that states, or EPA when it is promulgating a FIP, reach a particular conclusion or outcome regarding cost-effectiveness or emission reductions when applying the five-factor BART analysis, or in designing a BART-alternative program under 51.308(e).

Comment: EPA's suggestion that the State's request for a trading program justifies abandonment of the proposed rule's source-specific BART determinations is particularly misplaced. While the Clean Air Act does establish a cooperative state-federal framework, this does not justify EPA deferring to a State's expressed preferences for no reason. Moreover, EPA's deference to Texas' preferences is inappropriate here, given that the State has not submitted a new plan that corrects the 2009 plan that EPA disapproved.

[30] 82 FR 48324 at 48327.

Texas can submit a proposed SIP for EPA's review, and such a SIP could ultimately be adopted if it met Clean Air Act requirements. In its January 2017 BART proposal, EPA made clear that it would "work with the State . . . if it chooses to develop a SIP to meet these overdue Regional Haze requirements and replace or avoid a finalized FIP." 82 FR at 915. But to date, Texas has not done so, and the possibility of a future SIP does not affect EPA's *present* obligation to take final action on the BART proposal. It certainly does not justify replacing the source-specific BART proposal with a trading program that Texas wants but is unwilling to propose, especially when the Texas SO_2 Trading Program does not satisfy the haze reduction required by the Clean Air Act and EPA's Regional Haze Rule.

Response: We disagree with the commenter's statement that EPA is "deferring to [the] State's expressed preferences." While EPA was informed by comments we received from TCEQ, the Public Utility Commission of Texas, Luminant, and American Electric Power, asking us to consider as a BART alternative the concept of emission caps using CSAPR allocations,[31] our October 2017 final rule was ultimately based on our independent determination that a BART alternative approach under 40 CFR 51.308(e)(2) would meet all statutory and regulatory requirements and thus be viable for Texas. Thus, we did not finalize the source-specific BART emission limits we had proposed and instead we addressed the SO_2 BART requirement for Texas EGUs under a BART alternative consisting of an intrastate trading program in our October 2017 final rule.

We also disagree with the statement that EPA has a "present obligation to take final action on the [January 2017] BART proposal." Under the notice and comment rulemaking process, EPA may decline to finalize a proposed rule or may finalize a rule with changes from proposal based on consideration of additional information received during the comment period. Additionally, EPA may also propose a rule and rationale that differs from its original proposal and does not have an obligation to finalize the initial proposed rule as is the case here. We also note that the Regional Haze Rule does not require source-specific BART determinations, as the regulations at 40 CFR 51.308(e)(2)-(5) allow states, or EPA if promulgating a FIP, to adopt a BART alternative in place of source-specific BART provided that all applicable regulatory requirements related to the BART alternative are satisfied. With regard to the commenter's claim that "the Texas SO_2 Trading Program does not satisfy the haze reduction required by the Clean Air Act and the Regional Haze Rule," we note that the statute and applicable regulations do not mandate that states, or EPA when it is promulgating a FIP, reach a particular conclusion or outcome regarding emission reductions or visibility improvement when applying the five-factor BART analysis, or in designing a BART-alternative program under 40 CFR 51.308(e). EPA's obligations are to promulgate a final rule that meets the requirements of the CAA and the Regional Haze Rule, consider and respond to all relevant comments to the final rule, and provide a record of decision-making for its action that is not arbitrary and capricious. We find that we have met these requirements in this case.

4. Timing of the First Implementation Plan

[31] 82 FR 48324 at 48327.

Comment: The Regional Haze Rule requires all emission reductions from a BART alternative to take place before the end of the first planning period. Given that the first planning period ends in 2018, and the implementation of the Texas SO_2 Trading Program does not begin until 2019, the trading program, and any other BART alternative, would be unlawful.

Comment: Under the Regional Haze Rule, any BART alternative must include a "requirement that all necessary emission reductions take place during the period of the first long-term strategy for regional haze." See 40 CFR § 51.308(e)(2)(iii). The first long-term strategy runs concurrently with the first planning period, which ends in 2018. Thus, any BART alternative would need to achieve "all necessary emission reductions" this year. EPA claimed in the October 2017 final rule that "the end of the first planning period of the first long-term strategy for Texas is 2021," 82 FR at 48330; see also Legal RTC at 7. But that claim was unsupported and is inconsistent with EPA's prior statements identifying 2018 as the close of the first planning period. See, e.g., 77 FR at 36053; 77 FR at 28832; 77 FR at 18075. And while EPA now claims that revisions to the Regional Haze Rule made in January 2017 extended the first planning period, that claim is belied by the fact that in the 2017 rule revisions, EPA specifically noted that it was not altering the first planning period, stating that:

> All of these changes apply to periodic comprehensive state implementation plans developed for the second and subsequent implementation periods and to progress reports submitted subsequent to those plans. These changes do not affect the development and review of state plans for the first implementation period or the first progress reports due under the 1999 Regional Haze Rule.
>
> 82 FR 3078, 3080 (Jan. 10, 2017). EPA's claim to the contrary is baseless.

In sum, because any BART alternative would need to achieve all necessary emission reductions by 2018, and because the Texas SO_2 Trading Program will not be implemented by 2018, the Trading Program does not constitute a lawful BART alternative. 42 USC § 7607(d)(9)(A).

The current EPA Texas FIP does not provide the necessary protections within the timeframes of the first phase of Regional Haze Planning from 2008-2018. Specifically, New Jersey disagrees with EPA extending compliance with the BART alternative SO_2 Trading Program based on the submittal date extension included in the recent rule revision for the second planning period. The rule revision extended the time to submit Regional Haze plan revisions from 2018 to 2021 but did not extend the implementation for BART requirements associated with the first planning period. The emission reductions needed in the first planning period are still due by 2018. Allowing Texas to obtain the reductions by the end of 2019 negates the intent of the Clean Air Act (specifically the 10-year planning period to assure incremental progress) and puts additional burden on other contributing states to maintain progress. EPA's Texas FIP does not satisfy the long-term strategy and reasonable progress requirements for the first regional haze planning period of 2018. EPA should require that Texas implement the needed control measures as expeditiously as practicable.

Response: After further review or our discussion in the January 2017 final rule making amendments to the Regional Haze Rule and consideration of the comments we received pertaining

to this issue, we are not finalizing a position in this action that the first planning period has been extended to July 31, 2021. We agree with the commenter that this position would be at odds with the national finding in the January 2017 action that our amendments there "do not affect the development and review of state plans for the first implementation period . . . ." 82 FR at 3080. Nonetheless, we are finalizing our determination that the Texas SO_2 Trading Program satisfies the timing requirements of 51.308(e)(2)(iii), because actual emission levels from the Texas units covered by the BART alternative were below the levels mandated by the alternative prior to December 31, 2018, and the Trading Program took effect immediately at the beginning of 2019. As discussed in our November 2019 supplemental proposal, the combined SO_2 emissions from Texas EGUs participating in the Texas SO_2 Trading Program were 179,630 SO_2 tons in 2018, which is well below the Texas SO_2 Trading Program budget of 238,395 tons (as well as the assurance level of 255,083 tons we are finalizing in this action).[32] Therefore, the emissions reductions secured under the Texas SO_2 Trading Program occurred prior to the end of the period of the first long-term strategy for regional haze. With the Trading Program taking effect at the start of the 2019 calendar year, actual emissions were never allowed to exceed the amounts called for by the BART alternative. This meets the requirement at (e)(2)(iii) that the emission reductions called for by the BART alternative occur before the end of the period for the first long-term strategy.

EPA has previously proposed a view that where emission reductions required by a BART alternative are already achieved in practice during the first planning period, even though the enforceable requirement was not mandated until after the planning period, this can satisfy 40 CFR 51.308(e)(2)(iii). This was our position in our action proposing to approve a SIP revision from the State of Arkansas establishing a BART-alternative for the Domtar Ashdown Mill.[33] There, we explained that even though the BART alternative emission limits for the Domtar Ashdown Mill became enforceable by the State on February 28, 2019, the SIP revision submitted by Arkansas provided adequate documentation demonstrating that the two subject-to-BART units at the Domtar Ashdown Mill have actually been operating at emission levels below the BART alternative emission limits since December 2016.[34] Based on the documentation provided in the Arkansas SIP revision, we proposed to find that the subject-to-BART units at the Domtar Ashdown Mill satisfy the timing requirements of 40 CFR 51.308(e) that the necessary emission reductions associated with the BART alternative occur during the first long-term strategy for regional haze.[35] Consistent with that proposed action, we do not interpret section 51.308(e)(2)(iii) as requiring that all enforceable limits on annual emissions under the Texas SO_2 Trading Program be in place by December 31, 2018, or that the Trading Program itself must be implemented by December 31, 2018, if the emission levels called for by the BART alternative are achieved prior to that date and remain at or below that level until the alternative becomes enforceable (which in this case, is immediately following 2018). We are taking final action that the Texas SO_2 Trading Program satisfies the timing requirements of section 51.308(e)(2)(iii).

Comment: Source-specific BART is the only option EPA has proposed that is consistent with statutory requirements and goals. In upholding EPA's authority to select an alternative to source-specific BART, the D.C. Circuit has held that the overriding requirement for each regional

---

[32] 84 FR 61853.
[33] See 85 FR 14847 (March 16, 2020).
[34] 85 FR 14861.
[35] 85 FR 14861.

haze plan is that it make reasonable progress toward eliminating haze pollution. See Util. Air Regulatory Group v. EPA, 471 F.3d 1333, 1335 (D.C. Cir. 2006). As explained elsewhere in these comments, the Texas SO_2 Trading Program would not result in any progress, much less reasonable progress, because it does not require any emissions reductions relative to actual emissions from covered sources in 2015, 2016, and 2017. Instead, the Trading Program would authorize an increase in emissions. As a result, the Trading Program, and the accompanying FIP as a whole, fail to satisfy the fundamental requirement that each regional haze plan "contain such emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress toward meeting the national goal" of eliminating haze pollution. 42 USC § 7491(b)(2).

EPA may claim that the Texas SO_2 Trading Program makes reasonable progress relative to baseline dates prior to 2015, 2016, and 2017. While Texas SO_2 emissions were lower in 2015-2017 as compared to earlier years, most of that decline was due to retirements and the lack of competitiveness of coal-fired electricity generation compared to natural gas and renewables. In addition, 2017 emissions were higher than 2015 and 2016, and by authorizing even higher emissions than seen in 2015-2017, the Texas SO_2 Trading Program would likely further erode whatever gains were made post-2014.

However, regardless of which baseline date is used, the January 2017 source-specific BART proposal, or even presumptive BART, would reduce emissions and improve visibility far more than the Texas SO_2 Trading Program. In addition, EPA cannot credibly claim that the Texas SO_2 Trading Program will make any reasonable progress without comparing emissions under the Trading Texas SO_2 Trading Program to recent emission levels, e.g., emissions in 2015, 2016, and 2017.

Response: We agree that we had a mandatory duty to address the BART requirement for Texas EGUs, but we do not agree that addressing Texas' SO_2 BART requirements through a source-specific BART FIP is the only option that meets the regulatory and statutory requirements. Our October 2017 final rule fulfilled our mandatory duty to address the BART requirements for Texas EGUs through the promulgation of a FIP containing a BART alternative in the form of an intrastate trading program. The Texas SO_2 Trading Program as amended in this final action through the addition of the 255,083-ton assurance level and other amendments discussed elsewhere in this document and in Section III.A.1 of the preamble of the final rule associated with this document, will result in annual emissions from the covered EGUs and other EGUs in Texas that are lower than what was required under Texas participation in CSAPR's SO_2 trading program. Thus, the clear weight of evidence is that, overall, the Texas SO_2 Trading Program (considered in the larger context of CSAPR) will provide greater reasonable progress than BART at the covered sources and satisfies the requirements for a BART alternative under 40 CFR 51.308(e)(2)(i)(E).

The comment contending that the Texas SO_2 Trading Program authorizes sources to increase emissions relative to actual emissions in 2015, 2016, and 2017, and authorizes greater pollution than the status quo mischaracterizes the Texas SO_2 Trading Program and reflects a misunderstanding of its purpose. First, we note that the Texas SO_2 Trading Program will achieve an average reduction of at least 54,213 tons per year over the 2014 emissions, which is the difference

between the aggregate 2014 SO_2 emissions of the covered Texas EGUs (309,296 tons per year)[36] and the assurance level of 255,083 tons we are finalizing in this action. The assurance level represents the highest annual SO_2 emissions anticipated from units subject to the Texas SO_2 Trading Program in light of the three-for-one penalty surrender ratio imposed on emissions exceeding that level, and is therefore a conservatively high figure to compare against 2014 actual emissions levels. Second, and notwithstanding our position that we appropriately selected 2014 as the baseline year for the purpose of this analysis, we note that even if we had selected 2017 as the baseline year, we disagree that the Texas SO_2 Trading Program would authorize greater pollution than the status quo given that the trading program now contains an assurance level limiting SO_2 emissions from Texas EGUs participating in the trading program where no prior SO_2 emission limits under the regional haze program existed for these sources. Therefore, we disagree that the Texas SO_2 Trading Program authorizes greater pollution than the status quo even under the assumption of 2017 as the baseline year for comparison against the Texas SO_2 Trading Program as the status quo "authorizes" much higher emissions (due to there being no enforceable program at all and the only limitations being the facilities' current permit limits), even if actual emissions happened to be below that level.

We also note that the Texas SO_2 Trading Program, with the added assurance level we are finalizing in this action, also achieves significantly lower emissions relative to the baseline period, assuming a baseline of 2002.[37] These emission reductions that are secured by the Trading Program contribute to improvements in visibility from the baseline period for the first planning period and are permanent and enforceable as part of the long-term strategy for the State of Texas. As shown in Table 1 earlier in this document, the total combined SO_2 emissions from Texas EGUs participating in the Texas SO_2 Trading Program were 515,526 tons in 2002. The combined actual SO_2 emissions from all Texas EGUs (both those covered by the Texas SO_2 Trading Program and those not in the program) were 562,516 tons in 2002.[38] By comparison, the Texas SO_2 Trading Program budget is 238,395 SO_2 tons (plus a Supplemental Allowance Pool budget of 10,000 tons). Thus, for the covered units, the program achieves average annual emissions from the covered units of 248,395 tons. Compared with the 2002 baseline for these units, the program achieves 267,131 tons of reductions.

When we account for Texas units that were in CSAPR but not in the current program, we see a similar result using a conservative assumption about those units' emissions going forward. (As we explained in our supplemental proposal, our comparison of the Texas program to CSAPR should take account of emissions from these units.[39]) For illustrative purposes, in this comparison we will also use the higher figure of the new assurance level we are finalizing in this action (i.e., 255,083 SO_2 tons per year) for the Texas program rather than the average annual allocation. In our final analysis, as discussed elsewhere in this document and in Section III.A.2 of the preamble of the final rulemaking associated with this document, we are making the conservative assumption that

---

[36] 84 FR at 61854.

[37] The Regional Haze Rule provides that the baseline period for the first planning period is 2000-2004. *See* 40 CFR 51.308(d)(2)(i); *see also id.* 51.308(e)(2)(iv) (BART alternative emission reductions must be surplus to required CAA emission reductions as of the baseline date of the SIP).

[38] See Excel spreadsheet file "Texas EGU 2002 SO2 Emissions.xlsx," which is found in the docket for this final rulemaking.

[39] 84 FR at 61853.

future combined SO_2 emissions for units that were in the CSAPR program but not covered by the Texas SO_2 Trading Program is 35,000 tons. When our conservative assumption of 35,000 tons is added to the highest annual SO_2 emissions anticipated from units under the Texas SO_2 Trading Program, 255,083 tons per year (i.e., the assurance level for the program), the total figure is 290,083 tons per year. A comparison of these figures reveals that the combined actual SO_2 emissions from all Texas EGUs in 2002 during the baseline period (562,516 tons) were considerably higher than the highest annual SO_2 emissions anticipated from all Texas EGUs anticipated from operation of the Texas SO_2 Trading Program (290,083 tons), including the CSAPR units not included in that program – a difference of 272,433 tons. The emission reductions that are secured by the Trading Program contribute to improvements in visibility from the baseline period for the first planning period and are permanent and enforceable as part of the long-term strategy for the State of Texas.

5. Texas SO_2 Trading Program as a BART Alternative

Comment: BART is not a one-time obligation. The failure of the Texas SO_2 Trading Program to satisfy 42 USC § 7491(b)(2)(A) is especially problematic given EPA's mistaken position that BART is a one-time obligation that need not be revisited in future regional haze plans. To be clear, we do not agree that Congress intended BART to be determined only once for each source. However, EPA's interpretation of BART as a one-time requirement makes it all the more important that, in establishing the long-overdue BART standards for Texas at issue here, EPA select an option that will reduce emissions and make reasonable progress toward eliminating haze pollution. Here, the only option EPA has presented that would do so is the January 2017 source-specific BART proposal, which EPA must finalize.

Response: We do not agree that the only way to satisfy the SO_2 BART requirements for sources in Texas is through a source-specific BART FIP. The Regional Haze Rule does not require source-specific BART determinations, as the regulations at 40 CFR 51.308(e)(2)-(5) allow states, or EPA if promulgating a FIP, to adopt a BART alternative in place of source-specific BART provided that all applicable regulatory requirements related to the BART alternative are satisfied. Additionally, the statute and applicable regulations do not mandate that states, or EPA when it is promulgating a FIP, reach a particular conclusion or outcome regarding emission reductions or visibility improvement when applying the five-factor BART analysis, or in designing a BART-alternative program under 40 CFR 51.308(e). EPA's obligations are to promulgate a final rule that meets the requirements of the CAA and the Regional Haze Rule, consider and respond to all relevant comments to the final rule, and provide a record of decision-making for its action that is not arbitrary and capricious. As discussed in the final rule associated with this document, we find that we have met these requirements in this case.

With regard to the commenter's statement that EPA must to select an option that will reduce emissions and make reasonable progress toward eliminating haze pollution, the Texas SO_2 Trading Program budget and assurance level ensure significantly lower emissions relative to the baseline period for the first planning period (2000-2004), as we discuss earlier in this document. These emission reductions that are secured by the Trading Program contribute to improvements in visibility from the baseline period for the first planning period and are permanent and enforceable

as part of the long-term strategy for the State of Texas. We are not finalizing a position that the Texas SO_2 Trading Program is designed to meet the reasonable progress requirements for the first planning period. Given that BART is one component of the long-term strategy established to make progress towards the goal of natural visibility conditions, the Texas SO_2 Trading Program will thus contribute to meeting Texas' reasonable progress requirements. However, the necessary analysis, and potentially, emission controls, to fully address reasonable progress for Texas the first planning period will take place in a separate, future action.

To the extent that the commenter's claim that EPA has taken a mistaken position that BART is a one-time obligation that need not be revisited in future regional haze plans is directed to prior final agency actions, this comment falls outside of the scope of our action here. In our January 2017 Regional Haze Rule revision, which applies to periodic comprehensive SIPs developed for the second and subsequent implementation periods, we explained the following:

> States were required to undertake the BART determination process during the first implementation period. The BART requirement was a one-time requirement, but a BART-eligible source may need to be re-assessed for additional controls in future implementation periods under the CAA's reasonable progress provisions. Specifically, we anticipate that a number of BART-eligible sources that installed only moderately effective controls (or no controls at all) will need to be reassessed.[40]

Objections to EPA's finding that BART is a one-time obligation in the first planning period that need not be revisited in future regional haze plans do not properly pertain to this action. As explained in the January 2017 Regional Haze Rule revision, while BART does not need to be revisited in the future planning periods, a BART-eligible source, including those sources covered by the Texas SO_2 Trading Program, may need to be re-assessed for additional controls in future planning periods under the reasonable progress provisions of CAA section 169A and the Regional Haze Rule.[41]

Comment: A BART alternative must include a demonstration that the alternative would achieve greater reasonable progress than BART. 40 CFR § 51.308(e)(2). This demonstration "must be based on," among other things, "[a]n analysis of the best system of continuous emission control technology available and associated emission reductions achievable for each source within the State subject to BART and covered by the alternative program." Id. §51.308(e)(2)(i)(C). The October 2017 final rule that promulgated the Texas SO_2 Trading Program fails to include an analysis of BART at each source that is subject to BART and covered by the trading scheme, as required by 40 CFR §51.308(e)(2)(i)(C).

The Regional Haze Rule specifies how BART must be analyzed for the purpose of determining whether an alternative makes greater reasonable progress than BART. BART "must" be analyzed "as provided for in paragraph (e)(1) of this section," which describes the five factors that must be considered for each source, "unless the emissions trading program or other alternative measure has been designed to meet a requirement other than BART (such as the core requirement to have a long-term strategy to achieve the reasonable progress goals established by States)." Id. §

[40] 82 FR 3083.
[41] 82 FR 3083.

51.308(e)(2)(i)(C). If that exception applies, the state can determine BART "for similar types of sources within a source category based on both source-specific and category-wide information, as appropriate." Id.

EPA claims that because its Trading Program has been "designed to meet multiple requirements other than BART," namely, the interstate transport requirements and the long-term strategy provisions, the agency does not have to analyze BART. EPA is incorrect. The Texas SO_2 Trading Program was not designed to meet requirements other than BART.

Response: As noted by the commenter, 40 CFR section 51.308(e)(2)(i)(C) requires an analysis of the best system of continuous emission control technology available and associated emission reductions achievable for each source within the state subject to BART and covered by the alternative program. This analysis must be conducted by making a determination of BART for each source subject to BART and covered by the alternative program as provided for under section 51.308(e)(1), unless the emissions trading program or other alternative measure has been designed to meet a requirement other than BART. In such a case, the state may determine the best system of continuous emission control technology and associated emission reductions for similar types of sources within a source category based on both source-specific and category-wide information, as appropriate. In our August 27, 2018 proposal, we explained that in addition to being a sufficient alternative to BART, the Texas SO_2 Trading Program is designed to secure reductions consistent with visibility transport requirements.[42] We are finalizing this position.

The Texas SO_2 Trading Program, as amended in today's final action, in combination with Texas' participation in CSAPR to satisfy NO_X BART fully address Texas' interstate visibility transport obligations for the following six NAAQS: (1) 1997 8-hour ozone; (2) 1997 $PM_{2.5}$ (annual and 24 hour); (3) 2006 $PM_{2.5}$ (24-hour); (4) 2008 8-hour ozone; (5) 2010 1-hour NO_2; and (6) 2010 1-hour SO_2. The basis for this position is our determination that the regional haze measures in place for Texas are adequate to ensure that emissions from the State do not interfere with measures to protect visibility in nearby states given that the emission reductions are consistent with the level of emissions reductions relied upon by other states during interstate consultation under 40 CFR 51.308(d)(3)(i)-(iii) and when setting their reasonable progress goals.[43] As discussed in our August 2018 affirmation proposal, the 2009 Texas Regional Haze SIP relied on participation in CAIR to meet SO_2 and NO_X BART requirements for Texas EGUs. Under CAIR, Texas EGU sources were projected to emit approximately 350,000 tons of SO_2 annually.[44] These are the 2018 EGU emission projections used by CENRAP for Texas that other states potentially impacted by emissions from Texas sources agreed upon during interstate consultation and relied on in their regional haze SIPs. In today's final action, we are finalizing four revisions to strengthen the Texas SO_2 Trading Program and increase its consistency with CSAPR, including the addition of an assurance level consistent with the 2012 CSAPR demonstration. As discussed elsewhere in today's final action,

---

[42] 83 FR 43586, at 43597.

[43] See 2009 Texas Regional Haze SIP, section 4.3 titled "Consultations On Class I Areas In Other States." The submittal can be found at www.regulations.gov, Docket ID EPA-R06-OAR-2016-0611, Document ID EPA-R06-OAR-2016-0611-0002.

[44] See section 10 of the 2009 Texas Regional Haze SIP. Table 10-7 shows that under CAIR, the 2018 emission from Texas EGUs were projected to be approximately 350,000 tons SO_2. The SIP submittal can be found in www.regulations.gov, Docket ID EPA-R06-OAR-2016-0611, Document ID EPA-R06-OAR-2016-0611-0002.

Texas EGU annual SO_2 emissions for sources covered by the trading program will be constrained by the assurance level of 255,083 tons. Including an estimated 35,000 tons per year of emissions from units not covered by the Texas SO_2 Trading Program yields 290,083 tons of SO_2, which is well below the 350,000-ton emissions projection for 2018 for Texas sources under CAIR or the 317,100-ton emissions level assumed for Texas sources under CSAPR participation in the BART-alternative sensitivity analysis utilized for the 2012 CSAPR Better-than-BART determination.

Additionally, the October 2017 FIP relies on CSAPR for ozone season NO_X as an alternative to EGU BART for NO_X, which exceeds the NO_X emission reductions that would have been realized from Texas EGUs under CAIR and that other states relied upon during interstate consultation for the first planning period.[45] Because the revisions to the Texas SO_2 Trading Program we are finalizing in today's final action ensure emission reductions consistent with and below the emission levels relied upon by other states during interstate consultation, we find that these revisions provide further support for our earlier finding that the BART alternative results in emission reductions adequate to satisfy the requirements of CAA section 110(a)(2)(D)(i)(II) with respect to visibility for the six identified NAAQS.

We note that in our August 2018 proposal, we had also proposed to affirm our finding that the Texas SO_2 Trading Program is also designed to be part of the long-term strategy needed to meet the reasonable progress requirements of the Regional Haze Rule, which remain outstanding after the remand of our January 2016 FIP addressing Texas' reasonable progress obligations by the Fifth Circuit Court of Appeals. After consideration of the comments we received addressing this issue during the public comment period for our August 2018 proposal, we are not finalizing our affirmation of the finding that the Texas SO_2 Trading Program is also designed to be part of the long-term strategy needed to meet the reasonable progress requirements of the Regional Haze Rule at this time. BART is one component of the long-term strategy established to make progress towards the goal of natural visibility conditions, and while the Texas SO_2 Trading Program will thus contribute to meeting Texas' reasonable progress requirements, EPA has made clear that the necessary analysis, and potentially, emission controls, to fully address reasonable progress for Texas will take place in a separate, future action.[46] However, given that the Texas SO_2 Trading Program is designed to secure the measures that are needed to address interstate visibility transport requirements for several NAAQS (*i.e.*, it has been designed to meet a requirement other than BART), the Trading Program continues to satisfy the criteria under section 51.308(e)(2)(i)(C) that allow for the BART "benchmark" to be set using "category-wide" information rather than using source-specific BART.

We explain in a separate response how the Texas SO_2 Trading Program satisfies the BART alternative requirement under 40 CFR § 51.308(e)(2)(i) to include a demonstration that the alternative would achieve greater reasonable progress than BART.

---

[45] Under CAIR, Texas had an annual 2009 CAIR Phase 1 budget of 181,017 tons of NO_X and an annual 2015 CAIR Phase 2 budget of 150,845 tons of NO_X. See Section 11, Table 11-15 of the 2009 Texas Regional Haze SIP. The SIP submittal can be found at *www.regulations.gov*, Docket ID EPA-R06-OAR-2016-0611, document ID EPA-R06-OAR-2016-0611-0002. The 2018 EGU emission projections for NO_X used by CENRAP for Texas, which other states potentially impacted by emissions from Texas sources agreed upon during interstate consultation and relied on in their regional haze SIPs, were approximately 160,000 tons. In contrast, under the CSAPR ozone season NO_X trading program, Texas' 2017 NO_X ozone season budget is 52,301 tons of NO_X. See 81 FR 74504, 74508 (Oct. 26, 2016).

[46] 83 FR at 43596 n.63.

Comment: Even if the Texas SO_2 Trading Program were designed to meet requirements other than BART, EPA would still have violated 40 CFR § 51.308(e)(2)(i)(C) by failing to analyze BART for the sources subject to BART and covered by the Trading Program and then failing to compare the Texas SO_2 Trading Program to BART, as required by the Regional Haze Rule. If a state seeks to adopt an alternative to BART, the BART alternative must include a demonstration that the alternative would achieve greater reasonable progress than BART. This demonstration "must be based on," among other things, "[a]n analysis of the best system of continuous emission control technology available and associated emission reductions achievable for each source within the State subject to BART and covered by the alternative program." Id. §51.308(e)(2)(i)(C). There is no exception to the requirement to analyze BART.

Instead, the Regional Haze Rule provides an exception to the default rule for how BART must be analyzed. The default rule is that BART must be analyzed "as provided for in paragraph (e)(1)," id., meaning that each of the five statutory BART factors must be analyzed for each BART source. But if "the emissions trading program or other alternative measure has been designed to meet a requirement other than BART . . . the State may determine the best system of continuous emission control technology and associated emission reductions for similar types of sources within a source category based on both source-specific and category-wide information, as appropriate." Id.

There are several reasons why the Texas SO_2 Trading Program is not BART and is not designed to meet requirements other than BART. Here, assuming arguendo that the Trading Program is designed to meet a requirement other than BART, the October 2017 final rule that promulgated the Texas SO_2 Trading Program still does not satisfy 40 CFR §51.308(e)(2)(i)(C) because it fails to include an analysis of BART at each source that is subject to BART and covered by the Trading Program. 40 CFR §51.308(e)(2)(i)(C) merely authorizes EPA to analyze BART based on "category-wide information" in addition to source-specific information and does not relieve EPA of the obligation to analyze BART altogether. EPA made this clear in the preamble to the rule adding this provision to the Regional Haze Rule (71 FR 60612, 60618 (Oct. 13, 2006)), in which EPA explained that its goal was to allow states to use simplifying assumptions to calculate BART for comparison purposes, not to eliminate the obligation to analyze BART:

> States should have the ability to develop a BART benchmark based on simplifying assumptions as to what the most-stringent BART is likely to achieve. The regulations finalized today therefore provide that where an emissions trading program has been designed to meet a requirement other than BART, including the reasonable progress requirement, the State may establish a BART benchmark based on an analysis that includes simplifying assumptions about BART control levels for sources within a source category.

EPA claims to be "relying on the determinations of the best system of continuous emission control technology and associated emission reductions for EGUs as was used in our 2012 determination… These determinations were based largely on category-wide information." 83 FR at 43598. This vague reference does not fulfill EPA's obligation to develop and document a clear, relevant BART benchmark to which the public can directly compare its alternative. The proposal contains no determination identifiable as "the best system of continuous emission control

technology" or any value documenting "associated emission reductions." 40 CFR § 51.308(e)(2)(i)(C). EPA's failure to analyze BART for the sources covered by the Trading Program therefore violates 40 CFR § 51.308(e)(2)(i)(C).

Even if EPA's cursory reference to the 2012 determination were sufficient to determine BART, that determination assumed presumptive BART levels, which are now outdated. At 0.15 lbs/MMBtu, 40 CFR part 51, Appendix Y § (IV)(E)(4), presumptive BART limits are roughly three times higher than most recent SO_2 BART determinations that rely on new scrubbers, which, like the BART determinations in the January 2017 proposal for Texas, tend to be closer to 0.05 lbs/MMBtu. Presumptive BART is thus nowhere near "what the most-stringent BART is likely to achieve," 71 FR at 60618, and the 2012 determination is not a valid analysis of BART.

This is not a minor technical error. EPA deliberately avoided comparing the Trading Program to either presumptive BART or source-specific BART because the agency knows that the Trading Program would not achieve greater visibility improvement than source-specific BART. EPA has elsewhere concluded that source-specific BART or presumptive BART would reduce SO_2 emissions by approximately 194,000 tons per year, whereas the Trading Program would not decrease emissions at all relative to actual emissions in 2015, 2016, and 2017 from the covered sources. EPA flouted its regulations mandating a comparison between the Texas SO_2 Trading Program and BART because the agency's own, prior analyses demonstrate that the Trading Program cannot possibly satisfy the regulatory standard of achieving greater reasonable progress than BART.

Response: As noted by the commenter, the regulations provide that instead of making source-specific BART determinations for purposes of comparing against the BART alternative, the BART "benchmark" may be set using "category-wide" information when the alternative measure "has been designed to meet a requirement other than BART." *See* 40 CFR 51.308(e)(2)(i)(C). We explain in the preceding response how the Texas SO_2 Trading Program satisfies the conditions under section 51.308(e)(2)(i)(C) that allow for the exception to the requirement for source-specific BART determinations for the covered sources given that the Texas SO_2 Trading Program is designed to secure the measures that are needed to address interstate visibility transport requirements for several NAAQS (*i.e.*, it has been designed to meet a requirement other than BART).

As allowed under section 51.308(e)(2)(i)(C), rather than using source-specific BART at the covered sources to compare against the Texas SO_2 Trading Program, we are relying on the determinations of BART and associated emission reductions for EGUs that were used in our 2012 determination that showed that CSAPR as finalized and amended in 2011 and 2012 achieves more reasonable progress than BART ("CSAPR Better than BART Rule").[47] When promulgating the 2012 CSAPR Better-than-BART Rule, the EPA relied on an analysis of BART in CSAPR states and a demonstration showing that CSAPR would result in greater reasonable progress than BART under the test in 40 CFR 51.308(e)(3). The BART determinations and associated emission reductions for BART-eligible EGUs that were used in that 2012 CSAPR Better-than-BART

[47] 77 FR 33642 (June 7, 2012)

demonstration were based largely on category-wide information (all fossil fuel-fired EGUs) and utilized simplified assumptions, including the use of "presumptive" BART limits.[48] As we discussed in the preceding response, the regulations at section 51.308(e)(2)(i)(C) allow for the BART "benchmark" for comparison against the BART alternative to be set using "category-wide information" when the alternative measure "has been designed to meet a requirement other than BART." We find that "category-wide information" may include, for example, the use of "presumptive" BART emission limits for a particular source category, such as coal-fired EGUs. Thus, EPA finds that reliance on the category-wide BART analysis and determinations from the 2012 CSAPR Better-than-BART demonstration, including our reliance on those BART determinations as a BART benchmark for comparison against the Texas SO_2 Trading Program, is appropriate and allowed under section 51.308(e)(2)(i)(C), given that the Texas SO_2 Trading Program is modeled on the CSAPR trading programs.

In this final action, we are relying, in part, on that same 2012 CSAPR Better-than-BART demonstration to show that the clear weight of evidence demonstrates that the Texas SO_2 Trading Program, which is modeled on the CSAPR trading programs, will provide for greater reasonable progress than BART in Texas. Section 51.308(e)(2)(i)(E) requires a determination, under the specific criteria laid out at 40 CFR 51.308(e)(3) or otherwise based on the clear weight of evidence, that the trading program or other alternative measure achieves greater reasonable progress than would be achieved through the installation and operation of BART at the covered sources. The BART alternative EPA is taking final action to affirm here is supported by the clear weight of the evidence. Specifically, with respect to SO_2 emissions from the covered BART-eligible units, because the Texas SO_2 Trading Program, as amended in this final action, is designed to ensure that emissions levels in each year under the Trading Program are similar to or less than what would have been realized from Texas EGUs from participation in the SO_2 trading program under CSAPR, EPA can rely on the 2012 and 2017 findings that CSAPR achieves greater reasonable progress than BART as evidence that the Texas SO_2 Trading Program achieves greater reasonable progress than BART, in the context of the continued operation of the CSAPR ozone-season NO_X trading program (to which units in Texas remain subject) and the CSAPR annual NO_X and SO_2 trading programs.[49]

Indeed, the anticipated maximum potential SO_2 emissions in Texas under the Texas SO_2 Trading Program BART alternative are less than the SO_2 emission levels from Texas EGUs that were forecast in the demonstration for Texas EGU emissions assuming their participation in the CSAPR SO_2 trading program. Under CSAPR, the total allocations for all existing EGUs in Texas were 279,740 SO_2 tons, the total state budget including the amounts of allowances set aside for potential allocation to new units was 294,471 tons, and the assurance level was 347,476 tons. The level of emissions assumed for Texas EGUs in the BART alternative sensitivity analysis utilized for the 2012 CSAPR Better-than-BART determination is 317,100 SO_2 tons.[50] By comparison, the

---

[48] See 77 FR at 33649-50.

[49] EPA's determination that Texas' participation in CSAPR for ozone-season NO_X satisfies NO_X BART for EGUs is final and we did not reopen that determination in our August 2018 proposal or our November 2019 supplemental proposal.

[50] For the projected annual SO_2 emissions from Texas EGUs, *see* Technical Support Document for Demonstration of the Transport Rule as a BART Alternative, Docket ID No. EPA–HQ–OAR–2011– 0729–0014 (December 2011) (2011 CSAPR/BART Technical Support Document at Table 2-4,), available in the docket for this action. Certain CSAPR budgets were increased after promulgation of the CSAPR final rule (and the increases were addressed in the 2012

Texas SO_2 Trading Program has a budget of 238,395 SO_2 tons, and we are finalizing an assurance level of 255,083 tons in this action. In light of the three-for-one penalty surrender ratio imposed on emissions exceeding the 255,083-ton assurance level, the assurance level represents the highest annual SO_2 emissions anticipated from units subject to the Texas program. In reality, in light of ongoing changes in the electric-generating sector in Texas, there is a reasonable expectation that actual emissions under the Texas program would remain well below the assurance level. We are also finalizing a more conservative (i.e., higher) estimate of 35,000 annual SO_2 tons as the projected emissions from Texas units that would have been in the CSAPR program but are not in the Texas SO_2 Trading Program. This more conservative estimate is based on these units' maximum annual emission level of 34,129 tons over the past five years (2014–2018) and taking into consideration that several of these units have recently shut down or have been announced for shutdown in the near future.[51] Adding that amount to the Texas SO_2 Trading Program's assurance level of 255,083 tons yields 290,083 tons. Assuming this figure represents a firm upper bound on annual SO_2 emissions from the relevant EGUs in Texas under the Texas SO_2 Trading Program, this is less than the 317,100-ton figure EPA had demonstrated was acceptable in the original 2012 CSAPR Better-than-BART analysis.

Thus, as allowed under section 51.308(e)(2)(i)(C), we are appropriately relying on the determinations of BART and associated emission reductions for EGUs that EPA used in our 2012 CSAPR Better-than-BART determination as the BART benchmark for comparison against the Texas SO_2 Trading Program. And we have appropriately demonstrated, on the clear weight of evidence, that this BART alternative achieves greater reasonable progress than would be achieved through the installation and operation of BART at the covered sources, as required under section 51.308(e)(2)(i)(E).

Since our demonstration that the Texas SO_2 Trading Program is better than BART relies on the same determinations of BART for EGUs as was used in our 2012 CSAPR Better-than-BART demonstration, here we provide a discussion of the assumptions for the BART control scenario and presumptive BART made in the CSAPR Better-than-BART analysis. In EPA's CSAPR Better-than-BART analysis, we compared CSAPR to presumptive BART limits for all BART-eligible sources in the covered states, including in Texas. The first step in developing the BART control scenarios for the CSAPR Better-than-BART analysis was to identify EGUs in the contiguous 48 states that are eligible for BART controls and for which EPA has developed presumptive emission limits. These criteria limited the analysis to coal fired EGUs for which construction commenced by August 7, 1977 and that were not in operation prior to August 7, 1962, which is one of the three BART-eligibility criteria.[52] While EPA's "Guidelines for BART Determinations Under the

---

CSAPR/BART sensitivity analysis memo. See memo entitled "Sensitivity Analysis Accounting for Increases in Texas and Georgia Transport Rule State Emissions Budgets," Docket ID No. EPA–HQ–OAR–2011–0729–0323 (May 29, 2012), available in the docket for this action. The increase in the Texas SO_2 budget was 50,517 tons which, when added to the Texas SO_2 emissions projected in the CSAPR + BART-elsewhere scenario of 266,600 tons, yields total potential SO_2 emissions from Texas EGUs of approximately 317,100 tons.

[51] 84 FR 61853.

[52] A source is considered to be BART eligible if it meets the following three criteria: (1) it is an existing stationary source in any of 26 listed categories (including fossil-fuel fired steam electric plants of more than 250 MMBtu per hour heat input; (2) it was in existence on August 7, 1977 and began operation after August 7, 1962; and (3) its potential emissions are 250 tons per year or more for any visibility-impairing pollutant.

Regional Haze Rule"[53] at Appendix Y to 40 CFR Part 51 (hereinafter referred to as the "BART Guidelines") specify that presumptive limits for NO_X and SO_2 should be applied to EGUs having a total generating capacity of 750 MW or greater and also exempt from controls BART-eligible units with the potential to emit less than 40 tons per year of either NO_X or SO_2, in the CSAPR Better-than-BART analysis it was assumed that all BART-eligible EGUs were subject to BART requirements to ensure that controls that states might choose to require on sources not subject to presumptive BART were accounted for in this analysis. It was also assumed that presumptive BART limits would be applied to much smaller units. In this analysis it was assumed that the threshold for BART-eligibility was 100 MW for SO_2 and 25 MW for NO_X and no source was eliminated based on their annual total emissions. Appendix A to the "Technical Support Document for Demonstration of the Transport Rule as a BART Alternative" lists the EGUs that were assumed to be BART-subject for the purpose of this analysis.[54] For both the "Nationwide BART" scenario and the "Transport Rule + BART-elsewhere" scenario, the modeled emission rates were the presumptive EGU BART limits for SO_2 and NO_X as specified in the BART Guidelines, unless an actual emission rate at a given unit with existing controls is lower based on data from Version 410 of the National Electric Energy Data System (NEEDS), an EPA database of existing and planned-committed EGUs.[55] In cases where an actual emission rate at a given unit with existing controls was found to be lower than the presumptive limits, the lower emission rates were modeled.

EPA's "Guidelines for BART Determinations Under the Regional Haze Rule" at Appendix Y to 40 CFR Part 51 (hereinafter referred to as the "BART Guidelines") specify presumptive BART limits for SO_2 and NO_X for utility boilers. For SO_2, the BART Guidelines specify presumptive BART limits for an EGU with an existing scrubber as 95% scrubber control efficiency or 0.15 lbs/MMBtu. The NEEDS was used to identify which BART-eligible units have existing scrubbers, the scrubber efficiency at these units and the controlled SO_2 emission rate. For scrubbed BART-eligible units, the modeled SO_2 emission rate was based on a comparison of the SO_2 emission rate listed for that unit in NEEDS to the presumptive SO_2 limits. For an EGU with a scrubber operating at 95% or higher efficiency, the emission rate being achieved at that control efficiency was modeled for that unit even if the emission rate was higher than 0.15 lbs/MMBtu. Conversely, if an emission rate of 0.15 lbs/MMBtu or lower is being achieved, that emission rate was modeled for that unit, even if the scrubber is less than 95% efficient. For BART-eligible units without existing scrubbers, an emission rate was modeled that reflected 95% control based on a new installation of a highly efficient scrubber.

For NO_X, the EPA BART Guidelines specify presumptive limits based on coal type and boiler configuration. The presumptive NO_X BART limits specified in the BART Guidelines range from 0.62 lb/MMBtu for wet bottom tangential-fired boilers burning bituminous coal to 0.10 lb/MMBtu for cyclone boilers burning any coal type. The presumptive NO_X BART limits specified in the BART Guidelines are presented in the table below.

---

[53] Guidelines for BART Determinations under the Regional Haze Rule, 70 FR 39104, July 6, 2005.

[54] *See* Technical Support Document for Demonstration of the Transport Rule as a BART Alternative, Docket ID No. EPA-HQ-OAR-2011- 0729-0014 (December 2011), available in the docket for this action.

[55] See the NEEDS User Guide: http://www.epa.gov/airmarkets/progsregs/epa-ipm/CSAPR/docs/Guide_to_NEEDSv410.pdf which is found at http://www.epa.gov/airmarkets/progsregs/epa-ipm/transport.html.

Table 2. BART Presumptive NOx Limits by Boiler Configuration and Coal Type (lbs/MMBtu)

	Bituminous	Subbituminous	Lignite
Dry bottom wall-fired	0.39	0.23	0.29
Tangential-fired	0.28	0.15	0.17
Cell burners	0.40	0.45	Not applicable
Dry turbo-fired	0.32	0.23	Not applicable
Wet bottom tangential-fired	0.62	Not applicable	Not applicable
Cyclone	0.10	0.10	0.10

The BART guidelines also specify that existing NOx controls must be operated year-round. For the source-specific "Nationwide BART" scenario and for the "elsewhere" EGUs in the "Transport Rule + BART-elsewhere" scenario, it was assumed that any BART-subject unit with existing NOx controls in the future baseline case would retain at least those controls and would be required to operate them year round. If the existing NOx controls in the future baseline case did not meet the presumptive BART limits, installation of post-combustion controls (i.e., selective catalytic reduction (SCR) or selective non-catalytic reduction (SNCR)) that would meet the BART guidelines with year-round operation was assumed. In the "Transport Rule + BART-elsewhere" scenario, there are 5 states that are subject to the Transport Rule requirements during the ozone season only.[56] For these states, NOx controls were assumed to operate only during ozone season as required by the Transport Rule. BART emission limits modeled for certain EGUs were different from presumptive limits if the EGU has a configuration for which presumptive limits have not been established, or if the EGU has a different emission limit prescribed by a proposed or finalized State Implementation Plan, a Federal Implementation Plan, a final consent decree, or by state rule. These units and the emission rates modeled for these units are detailed in Table 2-2 of the "Technical Support Document for Demonstration of the Transport Rule as a BART Alternative."[57] Monticello, which had a configuration for which presumptive limits have not been established, is the only facility located in Texas that was modeled with an emission rate different from the NOx BART presumptive limits specified in the BART Guidelines; the units at the facility were modeled at a NOx emission rate of 0.14 lb/MMBtu. To estimate emissions expected from the BART control scenarios described above for the CSAPR Better-than-BART analysis, the Integrated Planning Model[58] (IPM) was used.

Under that analysis, the 2012 determination showed that CSAPR as finalized and amended in 2011 and 2012 achieves more reasonable progress than BART based on a comparison of the anticipated visibility improvement under CSAPR with the visibility improvement anticipated under those presumptive BART emission limits (and application of those limits to all BART-eligible EGU sources), including in Texas. We note that to the extent that the commenter is objecting to our

[56] States subject to the Transport Rule requirements during the ozone season only are Oklahoma, Arkansas, Louisiana, Mississippi and Florida.

[57] *See* Technical Support Document for Demonstration of the Transport Rule as a BART Alternative, Docket ID No. EPA-HQ-OAR-2011- 0729-0014 (December 2011), available in the docket for this action.

[58] Extensive documentation of the IPM platform may be found at http://www.epa.gov/airmarkets/progsregs/epa-ipm/transport.html.

CSAPR Better-than-BART determination and the analysis supporting it, such comment falls outside of the scope of our final action here. Objections to EPA's CSAPR better than BART determination and the analysis supporting it do not properly pertain to this action, but instead to our 2012 determination that showed that CSAPR as finalized and amended in 2011 and 2012 achieves more reasonable progress than BART ("CSAPR Better-than-BART").[59]

Even assuming comments on the methodology of the CSAPR Better-than-BART analysis were within the scope of this action as applied in Texas' circumstances, the use of a presumptive BART limit rather than the emission limits suggested by commenter remains appropriate even if, as the commenter contends, presumptive BART is not equal to the most stringent emission limit or control technology and is higher than most recent SO_2 BART determinations that rely on new scrubbers. BART is determined based on a five-factor analysis that includes cost, remaining useful life, and the existing controls at the BART source. Under a full BART analysis, it may or may not ultimately be appropriate to apply the most stringent emission limit or control technology at a particular source based on the evaluation of the five statutory factors. EPA has never made a final determination as to the appropriate emission limits under a source-specific approach for the five BART factors for the subject-to-BART sources in Texas. Further, the existing CSAPR Better-than-BART analysis remains conservative to the extent that it applied presumptive rates at all BART-eligible sources, not just subject to BART sources.

Commenter's assertion that source-specific BART would have achieved 194,000 tons of emission reduction in Texas is unexplained and unsupported. While this figure apparently is drawn from a single statement in a TSD for the January 2017 proposal, that proposal was not finalized. Even if EPA had decided to finalize source-specific BART determinations for Texas sources instead of a BART alternative in the October 2017 final rule, there is no certainty that EPA would have finalized the source specific BART determinations proposed in January 2017 with no changes from proposal. Furthermore, circumstances have changed sufficiently that the analysis in the January 2017 proposal would likely be materially different if EPA were to conduct a source-specific BART analysis now. Thus, the commenter's comparison of the emission reductions anticipated under the Texas SO_2 Trading Program to the 194,000 tons of emission reduction figure is not appropriate or relevant for purposes of determining if the Texas SO_2 Trading Program satisfies the BART alternative test of 40 CFR 51.308(e)(2)(i)(E).

Further, EPA's obligations are to promulgate a final rule that meets the requirements of the CAA and the Regional Haze Rule, consider and respond to all relevant comments to the final rule, and provide a record of decision-making for its action that is not arbitrary and capricious. We have satisfied these obligations. Having made the determination (in part through reliance on the analysis of CSAPR as a BART alternative) that the BART-alternative program satisfies 40 CFR 51.308(e)(2) under the clear weight of evidence test of 40 CFR 51.308(e)(2)(i)(E), EPA need not further explain or justify the Texas SO_2 Trading Program based on a comparison of emission reductions, costs, or visibility improvements that may have been potentially achieved had EPA finalized the source-specific controls we proposed in January 2017. The statute and applicable regulations do not mandate that states, or EPA when it is promulgating a FIP, reach a particular

[59] 83 FR 43598.

conclusion or outcome regarding cost-effectiveness or emission reductions when applying the five-factor BART analysis, or in designing a BART-alternative program under 40 CFR 51.308(e).

Comment: EPA violated the Regional Haze Rule by failing to determine which units are subject to BART. EPA then failed to determine BART on a source-specific or category-wide basis for the purpose of comparing the Texas SO_2 Trading Program to BART. Part of this failure stems from EPA's refusal to determine which sources are subject to BART in the first place. In its October 17, 2017 final action, EPA stated that "we do not deem it necessary to finalize subject-to-BART findings for these EGUs for these pollutants." 82 FR at 48328. In particular, EPA declined to determine whether Coleto Creek is subject to BART and declined to respond to comments concerning its subject-to-BART modeling. Id. at 48351-52. Elsewhere, EPA stated in responding to a comment, "We note that, as discussed elsewhere, we are not making a subject-to-BART determination for those sources covered by the SO_2 trading program. In our final rule, the relevant BART requirement for these participating units will be encompassed by BART alternatives for NO_X and SO_2 such that we do not deem it necessary to finalize subject-to-BART findings for these EGUs." Id. at 48349.

In the August 2018 proposal, EPA has not remedied this flaw by determining which units, particularly coal units, are subject to BART. Instead, EPA has considered only whether sources are subject to BART for PM, and whether certain oil- and/or gas-fired units are subject to BART. But most of the sources covered by the Texas SO_2 Trading Program are coal-fired power plants, and EPA has still not determined which coal-fired EGUs are subject to BART.

EPA erroneously argues that any source that would be subject-to-BART is a part of its Texas SO_2 BART alternative, implying that the issue is moot. However, section 51.308(e)(1)(ii) requires that EPA make "[a] determination of BART for each BART-eligible source in the State that emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any mandatory Class I Federal area. All such sources are subject to BART." EPA cannot make "[a] determination of BART" unless it first identifies which sources are subject-to-BART. This requirement pertains to any BART determination, including BART alternative programs under sections 51.308(e)(2) – (4). Other provisions of the Regional Haze Rule, such as 40 CFR § 51.308(e)(2)(i)(E), also require the identification of which sources are subject-to-BART.

In sum, EPA has unlawfully failed to determine which units are subject to BART. EPA's determination of whether some oil- and/or gas-fired units are subject to BART, and whether units are subject to BART for PM, is grossly insufficient, given that the largest source of haze-forming pollutants are coal-fired power plants, for which EPA has failed to make subject-to-BART determinations. Without finalizing EPA's January 2017 proposal regarding which units are subject to BART or otherwise deciding which sources are first subject to BART, EPA has not taken the first required step to make the source-specific or category-wide BART determinations that are necessary for the requisite comparison of the Texas SO_2 Trading Program to BART under 40 CFR § 51.308(e)(2)(C).

Response: We disagree with the comment that EPA must identify which BART-eligible sources are subject to BART if they are participating in a BART-alternative under 51.308(e)(2).

The Regional Haze Rule requirements under section 51.308(e)(2) require only that a list be provided of all BART-eligible sources within the state and that all BART-eligible sources in the state must be subject to the requirements of the alternative program, or addressed under paragraphs 51.308(e)(1) or 51.308(e)(4). We have met these requirements. All BART-eligible sources in Texas were either determined to not be subject to BART in our October 2017 final action or are covered under the Texas SO_2 Trading Program and/or the CSAPR Ozone Season NO_X program.[60] For those sources under the Texas SO_2 Trading Program, the distinction between those sources that are subject to BART or not is not necessary. We note that the Texas SO_2 Trading Program also includes participation of sources that are not BART-eligible.[61] Further, as discussed in the preceding response, we are relying on the determinations of BART and associated emission reductions for EGUs that EPA used in our 2012 CSAPR Better-than-BART analysis as the BART benchmark for comparison against the Texas SO_2 Trading Program. That analysis utilized presumptive BART and treated all BART-eligible EGUs as if they were subject to BART.

Commenter asserts that EPA must make source-specific BART determinations under the requirements of 51.308(e)(1), but those requirements do not apply for sources participating in a BART-alternative under (e)(2). The language at the beginning of paragraph (e) makes this clear: States must submit SIPs containing the BART analyses required under (e)(1) "unless the State demonstrates that an emissions trading program or other alternative will achieve greater reasonable progress toward natural visibility conditions." 40 CFR 51.308(e). EPA has never intended or interpreted its regulations at paragraph (e) to require that states or EPA must conduct a source-specific BART analysis under (e)(1) for BART-eligible sources participating in an alternative under (e)(2). Indeed, such a reading is not only inconsistent with the language at the beginning of paragraph (e) quoted above, it would also render inoperative the provisions at (e)(2)(i)(c) allowing the use of category-wide information under certain circumstances. Commenter's interpretation of the BART regulations on this point is simply incorrect.

Comment: EPA cannot use CSAPR as a BART benchmark in attempting to show that the Trading Rule makes greater reasonable progress than BART. Regardless of whether EPA makes its better-than-BART demonstration under the two-prong test in 40 CFR § 51.308(e)(3) or uses the "clear weight of evidence" option under 40 CFR § 51.308(e)(2)(i)(E), EPA must compare a BART alternative to a BART benchmark in demonstrating greater reasonable progress. 40 CFR § 51.308(e)(2)(i)(E). Here, EPA attempts to use CSAPR, rather than BART, as a BART benchmark, claiming that "the BART alternative is projected to accomplish emission levels from Texas EGUs that are similar to the emission levels from Texas EGUs that would have been realized from participation in the SO_2 trading program under CSAPR" and identifying a 2012 CSAPR demonstration as "the primary evidence that the Texas trading program achieves greater reasonable progress than BART." 83 FR at 43599. This use of CSAPR, not BART, as a BART benchmark is impermissible.

Because EPA withdrew Texas from the CSAPR program for SO_2, CSAPR is not by definition BART for SO_2. In previous instances in which EPA compared BART alternatives to

---

[60] 82 FR 48324.

[61] The units that are not BART-eligible and participating in the Texas SO_2 Trading Program are Harrington Station Unit 063B, WA Parish Unit WAP7, Welsh Power Plant Unit 3, H.W. Pirkey Unit 1, Limestone Unit 1, Limestone Unit 2, Sandown Unit 4, Tolk Unit 171B, and Tolk Unit 172B.

BART, those BART benchmarks, although ultimately not implemented in favor of the BART alternative, could have been implemented as lawful BART determinations. Were that not the case, they would not have qualified as legitimate BART benchmarks, because a BART determination must be codified as a federally enforceable emission limit. See 40 CFR part 51, Appendix Y § (V) ("To complete the BART process, you must establish enforceable emission limits that reflect the BART requirements and require compliance within a given period of time. In particular, you must establish an enforceable emission limit for each subject emission unit at the source and for each pollutant subject to review that is emitted from the source."). If a purported BART determination could not be implemented via a federally enforceable emission limit, then it could not be a proper BART determination under the BART Guidelines, and therefore cannot serve as a BART benchmark for purposes of assessing a BART alternative.

Here, EPA has no legal authority to require Texas to participate in SO_2 CSAPR. Given that EPA lacks legal authority to compel Texas sources to participate in SO_2 CSAPR, it is arbitrary and capricious for EPA to use CSAPR as a BART benchmark under section 51.308(e)(2)(i)(E) for Texas.

Even if EPA possessed the legal authority to compel Texas sources to participate in CSAPR for SO_2, CSAPR still could not serve as a BART benchmark to which the Texas SO2 Trading Program could be compared. That is because the Regional Haze Rule requires a comparison between the reasonable progress that would be made by a BART alternative versus BART, 40 CFR § 51.308(e)(2), (e)(2)(i)(C), (e)(3), and a demonstration that the alternative would make greater reasonable progress than BART, id. § 51.308(e)(2). CSAPR is a BART alternative, not a determination of BART pursuant to the five statutory factors in 42 USC § 7491(g)(2). No provision of the Regional Haze Rule authorizes EPA to approve a BART alternative by comparing it to another BART alternative and claiming that the BART alternative makes equal or greater reasonable progress than another alternative program—which is what EPA has unlawfully done here.

Response: First, the commenter is incorrect to say that EPA is treating CSAPR as the BART benchmark against which it is comparing the Texas SO_2 Trading Program. Rather, because the Texas program is designed to achieve greater SO_2 emission reductions than CSAPR in Texas, we are finalizing our affirmation that it is appropriate to continue to rely on the 2012 CSAPR Better-than-BART demonstration, which includes the treatment of Texas as a CSAPR state, as reaffirmed in September 2017[62] (and again affirmed in EPA's denial of the November 28, 2017 petition for reconsideration, as discussed under Section I.D of the preamble of the final rulemaking associated with this document).[63] That analysis compared CSAPR in Texas and elsewhere in the country to presumptive BART emission limits for the sources in Texas (as elsewhere) and is described in greater detail in our August 2018 proposed affirmation. *See* 83 FR 43586, at 43594-95.

---

[62] 82 FR 45481 (September 29, 2017).

[63] See U.S. EPA, Denial of Petition for Partial Reconsideration of "Interstate Transport of Fine Particulate Matter: Revision of Federal Implementation Plan Requirements for Texas" (82 FR 45481; Sept. 29, 2017) (EPA-HQ-OAR-2016-0598). A copy of the denial of petition letter sent to the petitioners and the denial of petition Notice of Availability published in the Federal Register are available at Docket ID EPA-HQ-OAR-2016-0598.

While Texas is no longer in the CSAPR trading program for SO_2 itself, we find that it is appropriate for us to continue relying here on the CSAPR Better-than-BART analysis for Texas given that the Texas SO_2 Trading Program is specifically designed to mimic the CSAPR program and, as discussed below, the amendments to the Texas SO_2 Trading Program EPA is finalizing in this action allow EPA to affirm that the Texas SO_2 Trading Program is similar to or more stringent than CSAPR in Texas. Further, EPA notes that the 2017 CSAPR Better-than-BART finding has been reaffirmed through the denial of a petition for reconsideration.[64] In our response to the petition for reconsideration, EPA explains that it has fully accounted for the stringency of the Texas SO_2 Trading Program as well as the potential for emission shifting back into the remaining CSAPR region with the removal of Texas into its own intrastate trading region. As such, the stringency of the Texas SO_2 Trading Program is sufficient to allow for the continued use of the CSAPR Better-than-BART analysis for Texas.

Comment: EPA failed to follow its own regulations for determining whether the clear weight of evidence demonstrates that an alternative achieves greater reasonable progress than BART. EPA attempts to demonstrate that the Texas SO_2 Trading Program achieves greater reasonable progress than BART via the optional "clear weight of evidence" approach of section 51.308(e)(2)(i)(E) in lieu of the requirements of sections 51.308(e)(3)(i)-(ii). In other rulemakings, EPA has explained how the clear weight of evidence provision in section 51.308(e)(2)(i)(E) should be applied. For instance, in disapproving Utah's BART alternative, EPA stated that pursuant to the BART Alternative Rule, the clear weight-of-evidence test requires three steps:

> (a) Use information and data that can inform the decision. . . .
>
> (b) Recognize the relative strengths and weaknesses of the information. Evaluate the information and recognize the relative strengths and weaknesses of the metrics used. This process involves assigning weights to each piece of information that indicate the degree to which it supports a finding that the alternative program will achieve greater visibility benefits. Such a weighing system might find that: (i) The information clearly shows the alternative will achieve greater reasonable progress than BART; (ii) the information supports the alternative in some way, but not clearly; or (iii) the information does not support the alternative.
>
> (c) Carefully consider all the information to reach a conclusion. Collectively consider the weights assigned to the individual pieces of information and consider the total weight of all the information to determine whether the proposed BART alternative will clearly provide for greater reasonable progress than BART at the impacted Class I areas.

In Utah's case, EPA then deliberately and thoughtfully assessed Points (a) – (c). As EPA stated in its final decision:

> As part of this evaluation, we assessed the relevance and strength of each metric, that is, we assigned each metric a weight. After determining if, and the extent to which, the information the State relied upon was "of sufficient quality to inform

[64] *Id.*

> the comparison of visibility impacts between BART and the alternative program," we assessed the metrics collectively to determine whether the relevant evidence, considered as a whole, clearly demonstrated that the alternative program achieves greater visibility benefits.

In concluding its evaluation of the Utah BART alternative, EPA stated that as a result of its evaluation, it found that the State's assessment of the metrics was inadequate because it did not recognize the relative strengths and weaknesses of the metrics on an individual basis. EPA also found that a proper recognition of the relative strengths and weaknesses, including the consideration that some metrics are more meaningful than others, shows that the BART Alternative does not achieve greater reasonable progress than BART.

A key finding of EPA's assessment of Utah's BART alternative was that the SIP submittal lacked an explanation of why the information from all the metrics demonstrated that the difference in visibility impacts between BART and the Alternative was large enough to "clearly" demonstrate that the BART Alternative would achieve greater reasonable progress than BART.

With regard to the above, EPA in particular noted that, "[t]he State's assessment of the overall weight of evidence states only that '[t]he weight of evidence shows that the alternative will provide greater reasonable progress than BART.' Utah Staff Review Report at 27." In other words, EPA found that Utah skipped the steps required under EPA's BART Alternative Rule, and merely *proclaimed* that it satisfied the weight of evidence test. This is exactly what EPA is now doing in addressing weight of evidence in its Texas SO_2 BART alternative. For instance, EPA states:

> Specifically, the BART alternative is justified "based on the clear weight of the evidence" that the alternative achieves greater reasonable progress than would be achieved through BART. See 40 CFR 51.308(e)(2)(E). The program is designed to accomplish environmental and visibility results by achieving emission levels that will be the same as or better than the emission levels that would have been obtained by state participation in the interstate CSAPR program as finalized and amended in 2011 and 2012, which EPA first deemed to be better than BART for NOx and SO_2 in a 2012 regulatory action.

EPA's attempt to justify the Texas SO_2 Trading Program under the "clear weight of evidence" standard suffers from some of the same flaws as Utah's attempt to justify its BART alternative under that same standard. Namely, EPA does not even mention, much less follow, the BART Alternative Rule's three-step process for making a clear weight of the evidence demonstration under 40 CFR § 51.308(e)(2). EPA fails to identify, let alone weigh or carefully consider, relevant, easily available information which should have informed its decision, e.g. the entirety of its January 2017 source-specific BART proposal, recent emissions data, presumptive BART emission rates and emission reductions which would be achieved by their use, the weaknesses of the outdated CSAPR evaluations, significant differences between the Texas SO_2 Trading Program and CSAPR, and EPA's own previous evaluation when withdrawing Texas from CSAPR showing greater emission reductions under BART.

In fact, instead of considering recent emissions, which show that the Texas SO_2 Trading Program requires no emission reductions, EPA specifically uses an older year, 2014, for its comparison. 83 FR at 43598. EPA's argument that Texas was not subject to CSAPR in 2014 is irrelevant, as it was not subject to CSAPR in 2017 either.

EPA's failure to follow its own policies and regulations renders the Texas SO_2 Trading Program arbitrary and capricious and otherwise unlawful.

Response: EPA disagrees that we are applying a different standard for "clear weight of evidence" than we have in other cases. The specific circumstances of Texas as compared to Utah are readily distinguishable. Specifically, the better-than-BART demonstration for the Texas SO_2 Trading Program relies on the quantitative modeling, analyses and demonstrations supporting our June 2012 "CSAPR Better-than-BART" determination and September 2017 "CSAPR Better-than-BART" affirmation finding (as recently reaffirmed by our denial of a petition for reconsideration on the latter). This analysis follows the two-part quantitative test of 51.308(e)(3), and in our weight of evidence approach discussed in Section III.A.2 of the preamble of our final rulemaking as well as in a preceding response in this document, we rely on that technical analysis, as supplemented by additional evidence that the Texas SO_2 Trading Program achieves at least the same amount of emission reductions as were projected for Texas in the CSAPR analysis (including accounting for potential shifting in emissions to CSAPR states with the removal of Texas from the program). Utah, in a far different context, had attempted to show by a series of metrics (many of which were novel and unique to that SIP submittal) that a BART-alternative achieved greater reasonable progress than BART, but the state failed to explain how it weighed these metrics, and EPA found that one of the most important metrics in that instance (visibility impact on the 98th percentile day) did not actually support the alternative.

Comment: The clear weight of evidence demonstrates that the Texas SO_2 Trading Program will not make greater reasonable progress than BART. The clear weight of evidence demonstrates that the Texas SO_2 Trading Program would not achieve greater reasonable progress than would be achieved through BART, 40 CFR § 51.308(e)(2). In the October 2017 final rule, EPA claimed that "this BART alternative will result in SO_2 emissions from Texas EGUs that will be similar to emissions anticipated under CSAPR." 82 FR at 48327. EPA makes similar claims in proposing to affirm the Texas SO_2 Trading Program. *See, e.g.*, 83 FR at 43598-99. But EPA has already determined that CSAPR would not achieve anywhere near the emissions reductions that source-specific BART would achieve in Texas. Given that the Texas SO_2 Trading Program is intended to mimic the effect of CSAPR, and CSAPR would achieve less reasonable progress than BART in Texas, the Texas SO_2 Trading Program would also achieve less reasonable progress than BART, in violation of the Regional Haze Rule, 40 CFR §51.308(e)(2), (e)(2)(i)(E), (e)(3).

In three separate rulemakings, EPA has concluded that CSAPR would achieve far less reasonable progress than source-specific BART would achieve in Texas. First, in the January 2017 BART proposal, EPA determined that source-specific BART would reduce SO_2 emissions by approximately 194,000 tons per year, "a larger reduction than projected under CAIR or CSAPR." *See* BART FIP TSD at 2.

The BART proposal was the culmination of years of technical work by EPA staff. EPA sent two rounds of information requests to the facilities subject to BART in order to gather source-specific data. Id. at 12-21. Using the responses to EPA's information requests, as well as other data reported to EPA and other agencies, EPA considered each of the five statutory BART factors for each source. See, e.g., id. at 25-78. EPA's detailed analyses span hundreds of pages, in several technical support documents and other documents. And after completing those analyses, EPA ultimately concluded that CSAPR would achieve less reasonable progress than the installation and operation of BART in Texas. Id. at 2. Given that EPA expects SO_2 emissions under the Texas SO_2 Trading Program to be similar to emissions under CSAPR, 82 FR at 48327, 83 FR at 43598-99, EPA's analysis shows that the Texas SO_2 Trading Program, like CSAPR, would improve visibility less than would source-by-source BART. For this reason alone, the Texas SO_2 Trading Program violates the Regional Haze Rule, 40 CFR § 51.308(e)(2), (e)(2)(i)(E), (e)(3).

It is important to note that EPA has not revised, or even questioned, any aspect of the technical analysis of source-specific BART that EPA conducted for the January 2017 BART proposal. EPA cannot simply ignore its own technical analyses, because the agency failed to identify any errors in those technical analyses.

Second, in the original Better-than-BART rulemaking, EPA found that CSAPR would result in higher SO_2 emissions than presumptive BART for Texas sources. Specifically, EPA concluded that Texas sources would emit 139,300 tons of SO_2 if presumptive BART limits were required, but would emit nearly double that amount, 266,600 tons, under CSAPR. EPA later increased Texas' CSAPR SO_2 budget by 50,517 tons. 81 FR at 78963. As a result, Texas' allowed emissions under CSAPR were 316,517 tons, over double the emissions under EPA's 2011 analysis of presumptive BART.

As explained elsewhere in these comments, it is unlawful for EPA to assume that because CSAPR would make greater reasonable progress than BART when averaged across all affected states, the Texas SO_2 Trading Program will automatically make greater reasonable progress than BART at Class I areas affected by Texas sources.

By allowing higher SO_2 emissions, CSAPR would result in less visibility improvement than under BART. When EPA increased Texas' SO_2 budget by 50,517 tons, the agency conducted sensitivity analyses of its visibility modeling for the Better-than-BART Rule to account for significant changes to CSAPR. However, it did not present detailed information on the visibility impacts from Texas emission sources on the Class I areas it identified as impacted by Texas' emissions. Using EPA's own methodology, we have done just that, which we summarize in Table 1 below. This update of EPA's analysis indicates that presumptive BART achieves greater overall visibility improvement than CSAPR when Texas is considered on its own, as it must be here.

Specifically, Table 3 shows that even before EPA increased Texas' SO_2 budget by 50,157 tons, presumptive BART would have achieved greater aggregate visibility improvement than CSAPR on the 20% best days. And after EPA increased Texas' SO_2 budget, the results

indicate that presumptive BART would have achieved more visibility improvement in the aggregate than CSAPR on the 20% worst days as well.

In Table 3 below, the "CSAPR + BART Elsewhere" columns represent the change in deciviews ("dv") due to the effects of CSAPR within the transport region and source-by-source BART outside that region (elsewhere). The next columns use EPA's methodology to correct the "CSAPR + BART Elsewhere" columns for the additional 50,157 tons per year SO_2 added to Texas' budget. This is done by applying the 0.73 proportionality constant EPA calculated in the CSAPR BART Sensitivity Memo to the 20% best and worst days. The next columns represent the BART base case modeling. The last columns indicate whether better visibility resulted from BART or CSAPR before or after the application of the 0.73 proportionality constant. The "Totals" row indicates that the overall visibility improvement from BART on the 20% best days (3 dv) exceeds that from CSAPR (1.7 dv), and similarly the improvement from BART on the 20% worst days (10.3 dv) exceeds that from CSAPR (10.2 dv).

Table 3. Updated Version of EPA's Comparison of Visibility Improvement Under CSAPR vs. BART at Texas Sources.

		20 % Best Days Visibility Improvement (dv)				20 % Worst Days Visibility Improvement (dv)			
Class I Area Name	State	CSAPR + BART-elsewhere	CSAPR + BART-elsewhere after EPA Adjustment	BART - 2014 Base Case	Better Visibility under BART before or after EPA Adjustment?	CSAPR + BART-elsewhere	CSAPR + BART-elsewhere after EPA Adjustment	BART - 2014 Base Case	Better Visibility under BART before or after EPA Adjustment?
Big Bend NP	TX	0.2	0.15	0.2	Y – After	1.1	0.80	1.0	Y – After
Caney Creek Wilderness	AR	0.4	0.29	0.6	Y – Before	3.2	2.34	2.2	N
Carlsbad Caverns NP	TX	0.1	0.07	0.1	Y – After	0.9	0.66	0.8	Y – After
Guadalupe Mountains NP	TX	0.1	0.07	0.1	Y – After	0.9	0.66	0.8	Y – After
Hercules-Glades Wilderness	MO	0.6	0.44	0.8	Y – Before	2.5	1.83	1.7	N
Salt Creek	NM	0.1	0.07	0.2	Y – Before	0.7	0.51	0.7	Y – After
Upper Buffalo Wilderness	AR	0.5	0.37	0.6	Y – Before	2.5	1.83	1.4	N
White Mountain Wilderness	NM	0.1	0.07	0.2	Y – Before	0.6	0.44	0.5	Y – After
Wichita Mountains	OK	0.2	0.15	0.2	Y – After	1.6	1.17	1.2	Y – After
Totals		**2.3**	**1.7**	**3.0**		**14.0**	**10.2**	**10.3**	

Third, during the rulemaking to remove Texas from CSAPR's SO_2 trading program – published on the same day that the Trading Rule was signed in 2017—EPA again confirmed that Texas SO_2 emissions under BART would be dramatically lower than under CSAPR. Specifically, EPA found that requiring Texas sources to install BART would reduce SO_2 emissions by between 127,300 and 177,800 tons relative to emissions under CSAPR. 81 FR at 78963. EPA concluded that removing Texas sources from CSAPR and requiring them to install BART controls would "improv[e] projected air quality in this scenario relative to projected air quality in both the Nationwide BART scenario and the base case scenario (in which the projected SO_2 emissions from Texas EGUs would not change)." Id.

In short, in three separate rulemakings—the January 2017 source-specific BART proposal for Texas, the Better-than-BART rulemaking, and the withdrawal of Texas from CSAPR—EPA has found that CSAPR results in higher SO_2 emissions from Texas generating units than BART. This remains true regardless of whether CSAPR is compared to presumptive BART or source-specific BART.

While we have mentioned EPA's original and updated Better-than-BART analyses, and updated such analyses in Table 1, we do not agree that presumptive BART is the appropriate benchmark to use in an analysis of whether an alternative makes greater reasonable progress than BART. We refer to EPA's use of presumptive BART in the Better-than-BART analyses only to point out that even presumptive BART achieves greater reasonable progress than CSAPR—and, by extension, the even more permissive Texas SO_2 Trading Program. EPA should have compared visibility improvement under the Texas SO_2 Trading Program versus source-specific BART limits. In addition, while in Table 1 we update EPA's approach to assessing visibility impacts, we do not support that approach. To accurately compare visibility impacts from the Trading Rule and BART, EPA must conduct new modeling.

As shown in the table above, the significantly higher emissions under CSAPR translate into greater visibility impairment in the region's Class I areas. EPA's own analyses therefore refute the agency's claim that the Texas SO_2 Trading Program, which allows "SO_2 emissions from Texas EGUs . . . similar to emissions anticipated under CSAPR," 82 FR at 48327, would achieve greater reasonable progress than BART. Contrary to EPA's claims, the "clear weight of evidence" demonstrates that the intrastate trading program will achieve less reasonable progress than BART. The Texas SO_2 Trading Program therefore violates the Regional Haze Rule, 40 CFR § 51.308(e)(2), (e)(2)(i)(E), (e)(3).

Response: We disagree with the commenter's claim that the Texas SO_2 Trading Program violates the Regional Haze Rule. While it is true that source-specific BART at least historically had been expected to result in lower SO_2 emissions in Texas compared to participation in CSAPR or participation in the Texas SO_2 Trading Program,[65] this does not mean that CSAPR or the Texas

[65] As we discuss earlier in this document, commenter's assertion that source-specific BART would have achieved 194,000 tons of emission reduction in Texas is apparently drawn from a single statement in a TSD for the January 2017

SO_2 Trading Program are not appropriate BART alternatives. First, we note that to the extent that commenter raises objections to our prior analytic demonstrations for EPA's 2012 determination that CSAPR participation meets the Regional Haze Rule's criteria to qualify as a BART alternative and the 2017 determination that participation in CSAPR, as it now exists, continues to meet the Regional Haze Rule's criteria for an alternative to BART, such objections fall outside of the scope of our action here. For example, the commenter expresses disagreement that presumptive BART is the appropriate benchmark to use in an analysis of whether an alternative makes greater reasonable progress than BART. This and other objections to EPA's "CSAPR Better-than-BART" determination and "CSAPR Better-than-BART affirmation finding" and the analyses supporting those determinations do not properly pertain to our proposal affirming the Texas SO_2 Trading Program, but instead to our June 2012 determination that CSAPR as finalized and amended in 2011 and 2012 achieves more reasonable progress than BART ("CSAPR Better-than-BART" Rule)[66] and our September 2017 "CSAPR Better-than-BART affirmation finding."[67]

Notwithstanding that objections to EPA's June 2012 CSAPR Better-than-BART Rule and September 2017 CSAPR Better-than-BART affirmation finding fall outside the scope of our action here, we note that when promulgating the 2012 CSAPR Better-than-BART Rule, the EPA relied on an analytic demonstration that included an air quality modeling study showing that CSAPR results in greater improvements in average visibility across all affected Class I areas as compared to adopting source-specific BART. This analytic demonstration looked at average visibility across all affected Class I areas rather than focusing on individual Class I areas. The commenter contends that it is unlawful for EPA to assume that because CSAPR would make greater reasonable progress than BART when averaged across all affected states, the Texas SO_2 Trading Program will automatically make greater reasonable progress than BART at Class I areas affected by Texas sources. We are not purporting to make the determination that the Texas SO_2 Trading Program standing alone makes greater reasonable progress than source-specific BART.

Instead, as we explained in our August 27, 2018 proposal affirming the Texas SO_2 Trading Program, as supplemented by the November 14, 2019 supplemental proposal, the Texas SO_2 Trading Program as amended through the addition of a 255,083-ton assurance level and other amendments discussed elsewhere in this document and in Section III.A.1 of the preamble of today's final rulemaking, along with the combination of the source coverage for this program, the total allocations for EGUs covered by the program, and recent and foreseeable emissions trends from those EGUs both covered and not covered by the program will result in future EGU emissions in Texas that will be less than the SO_2 emission levels forecast in the 2012 Better-than-BART

---

proposal. Those source-specific BART determinations were not finalized and circumstances have changed sufficiently that the analysis in the January 2017 proposal would likely be materially different if EPA were to conduct a source-specific BART analysis now. Thus, the commenter's comparison of the emission reductions anticipated under the Texas SO_2 Trading Program to the 194,000 tons of emission reduction figure is not appropriate or relevant for purposes of determining if the Texas SO_2 Trading Program satisfies the BART alternative test of 40 CFR 51.308(e)(2)(i)(E).

[66] 77 FR 33642.

[67] 82 FR 45481 (September 29, 2017). We note that whether the BART alternative analysis in this action may rely on presumptive BART, as was done for CSAPR, for purposes of determining whether EPA can rely on "category-wide" information pursuant to 51.308(e)(2)(i)(C) is within scope. As explained above at pages 31-32, EPA has explained why it may use presumptive BART information for this action.

demonstration for Texas EGU emissions assuming CSAPR participation.[68] Relying on the analysis presented in Section III.A.2 of the preamble of today's final rule, we affirm our determination that emission levels under the intrastate trading program as amended in today's final action, and their aggregate impact on visibility, will be on average no greater than those from Texas EGUs that would have been realized from the SO_2 trading program under CSAPR.[69] Further, EPA can now affirm that it has fully accounted for the potential for emission shifting back into the remaining CSAPR region such that the stringency of the Texas program is sufficient to reaffirm the treatment of Texas in the CSAPR Better-than-BART analysis, as well as account for the effects of Texas no longer being a part of the interstate trading region of CSAPR. We are taking final action to affirm our determination that the Texas SO_2 Trading Program as amended in this final action through the addition of the 255,083-ton assurance level and other amendments discussed in Section III.A.1 of the preamble of today's final rule, will result in average annual emissions from the covered EGUs and other EGUs in Texas that are lower than what was required under Texas participation in CSAPR's SO_2 trading program. Thus, the clear weight of evidence is that, overall, the Texas trading program in conjunction with CSAPR will provide greater reasonable progress than BART at the covered sources. Accordingly, we are taking final action to affirm that the Texas SO_2 Trading Program, as amended in today's final action, satisfies the requirements for a BART alternative under 40 CFR 51.308(e)(2)(i)(E).

We disagree that EPA must demonstrate that the Texas SO_2 Trading Program is better than BART by examining visibility improvement at only Class I areas in Texas and Class I areas in other states affected by Texas sources. Our analysis for the Texas SO_2 Trading Program continues to rely on the larger CSAPR Better-than-BART findings, as updated in September 2017 (including our denial of the petition for reconsideration with respect to the September 2017 finding.[70] As explained in our proposal affirming the Texas SO_2 Trading Program, the 2012 demonstration that CSAPR, as finalized and amended in 2011 and 2012, meets the Regional Haze Rule's criteria for a demonstration of greater reasonable progress than BART is also the primary evidence that the Texas SO_2 Trading Program achieves greater reasonable progress than BART.[71] In the 2012 CSAPR Better-than-BART Rule, the EPA relied on an analytic demonstration that included an air quality modeling study showing that CSAPR results in greater improvements in average visibility across all affected Class I areas as compared to adopting source-specific BART. Our finding with respect to the Texas SO_2 Trading Program relies on the demonstration underlying our CSAPR Better-than-BART Rule and our 2017 CSAPR Better-than-BART affirmation (including the basis for our denial of a petition for reconsideration in the latter,[72] as discussed in Section I.D of the preamble of today's final rulemaking). Thus, we find that given the circumstances in this case, as described above, we are not required to focus only on Class I areas in Texas and Class I areas in

---

[68] 83 FR 43591.

[69] 83 FR 43592.

[70] See U.S. EPA, Denial of Petition for Partial Reconsideration of "Interstate Transport of Fine Particulate Matter: Revision of Federal Implementation Plan Requirements for Texas" (82 FR 45481; Sept. 29, 2017) (EPA-HQ-OAR-2016-0598). A copy of the denial of petition letter sent to the petitioners and the denial of petition Notice of Availability published in the Federal Register are available at Docket ID EPA-HQ-OAR-2016-0598.

[71] 83 FR 43586, at 43599.

[72] See U.S. EPA, Denial of Petition for Partial Reconsideration of "Interstate Transport of Fine Particulate Matter: Revision of Federal Implementation Plan Requirements for Texas" (82 FR 45481; Sept. 29, 2017) (EPA-HQ-OAR-2016-0598). A copy of the denial of petition letter sent to the petitioners and the denial of petition Notice of Availability published in the Federal Register are available at Docket ID EPA-HQ-OAR-2016-0598.

other states affected by Texas sources. Rather, we are assessing the Texas program in the context of the larger CSAPR Better-than-BART analysis. We find that due to the specific circumstances in this case, as described above, it is reasonable and appropriate to consider improvements in average visibility across all affected Class I areas in our assessment of the Texas SO_2 Trading Program to demonstrate that it is better than BART. As discussed in Section III.A.2 of the preamble of today's final rulemaking, the amendments to the Texas SO_2 Trading Program we are finalizing in this action ensure that EGU emissions under the Texas program will remain well below the amount assumed in the BART-alternative sensitivity analysis utilized for the 2012 CSAPR Better-than-BART determination (*i.e.*, 317,100 tons), and thus visibility levels at Class I areas impacted by sources in Texas are anticipated to be at least as good as (and likely better than) the levels projected under Texas participation in the larger CSAPR SO_2 trading program. Because this is the case, EPA can rely on the CSAPR Better-than-BART analysis to demonstrate, by the clear weight of the evidence, that the Texas SO_2 Trading Program, in conjunction with continued implementation of CSAPR in other states, provides greater reasonable progress than BART.

With regard to the comment that EPA is ignoring the technical analyses of source-specific BART that EPA conducted for the January 2017 BART proposal, we note that those source-specific BART findings and supporting technical analyses in our January 2017 proposal were not finalized and further, circumstances have changed sufficiently that the analysis in the proposal would likely be materially different should we conduct a source-specific BART analysis now. We discuss this issue in greater detail elsewhere in this document. Further, EPA's obligations are to promulgate a final rule that meets the requirements of the CAA and the Regional Haze Rule, consider and respond to all relevant comments to the final rule, and provide a record of decision-making for its action that is not arbitrary and capricious. We have satisfied these obligations. Having made the determination (in part through reliance on the analysis of CSAPR as a BART alternative) that the BART-alternative program satisfies 40 CFR 51.308(e)(2) under the clear weight of evidence test of 40 CFR 51.308(e)(2)(i)(E), EPA need not further explain or justify the Texas SO_2 Trading Program based on a comparison of emission reductions, costs, or visibility improvements that may have been potentially achieved had EPA finalized the source-specific controls we proposed in January 2017. The statute and applicable regulations do not mandate that states, or EPA when it is promulgating a FIP, reach a particular conclusion or outcome regarding cost-effectiveness or emission reductions when applying the five-factor BART analysis, or in designing a BART-alternative program under 40 CFR 51.308(e).

We address elsewhere in this document comments contending that EPA must compare the Texas SO_2 Trading Program in our FIP to presumptive BART or source-specific BART in assessing whether the Trading Program will achieve greater reasonable progress than BART.

Comment: Instead of requiring emissions reductions, the Texas SO_2 Trading Program authorizes an increase in SO_2 emissions. Both source-specific and presumptive BART would require substantial emissions reductions relative to the Texas SO_2 Trading Program's cap. Further, the Texas SO_2 Trading Program is designed in such a way that it will not provide external pressure for emissions reductions to go below the cap. EPA cannot possibly prove that the Texas SO_2 Trading Program makes greater reasonable progress than BART.

The total allocations for all of the sources that participate in the Texas SO_2 Trading Program is 238,393 tons of SO_2 per year, plus a Supplemental Allowance pool of 10,000 tons, for a maximum total annual allocation of 248,393 tons. However, EPA notes that the "Supplemental Allowance pool may grow over time," such that the "total number of allowances that can be allocated in a single year is therefore 293,104, which is the sum of the 238,393 budget for existing units plus 54,711."

The SO_2 emissions of the units that would participate in the Texas SO_2 Trading Program were 236,754 tons in 2015, 218,291 tons in 2016 and 245,870 tons in 2017. The Trading Program authorizes sources to emit as much as 293,104 tons, which is a 47,234 ton increase over 2017 emissions, and a 74,813 ton increase over 2016 emissions. Even if one disregards the potential growth in the Supplemental Allowance Pool (from an initial 10,000 tons to 54,711 tons), and uses 248,393 tons as the total number of allowances, the Trading Program still authorizes an increase in emissions over actual emissions in 2015, 2016, and 2017. In short, the Texas SO_2 Trading Program would not only fail to require greater reasonable progress than BART, it would unreasonably authorize greater pollution than the status quo.

As EPA indicates, the SO_2 emissions of the units that would participate in the Texas SO_2 Trading Program increased from 218,291 tons in 2016 to 245,870 tons in 2017, or by 27,579 tons. It is notable that had EPA's Texas SO_2 Trading Program been in effect in 2016, it would not have prevented this increase. The participating units would still have been under the generous cap EPA has provided for them.

EPA solicits comment on limiting the Supplemental Allowance Pool to 41,335 tons, noting that it would subtract "the annual allocation for the participating units that have been permanently retired as of January 1, 2019." However, this would still result in participating sources emitting 33,858 tons of SO_2 more than what they emitted in 2017 (238,393 + 41,335 –245,870), and 61,437 more tons of SO_2 than in 2016 (238,393 + 41,335 – 218,291), and 42,974 more tons of SO_2 than in 2015 (238,393 + 41,335 – 236,754). As we discuss elsewhere, a Supplemental Allowance Pool as part of the Texas SO_2 Trading Program only adds to its absurdity.

EPA claims that the Texas SO_2 Trading Program would decrease SO_2 emissions relative to 2014 emission levels. See, e.g., 83 FR at 43598-99. EPA's sole rationale for selecting 2014 as the baseline emissions year for comparing the Texas SO_2 Trading Program to BART is that "Texas sources were subject to the CSAPR SO_2 trading program in 2015 and 2016 but are no longer subject to that program. We therefore select 2014 as the appropriate most recent year for this comparison." Id. at 4598 n.82. EPA's "explanation" is incoherent, at best. If EPA is trying to select a baseline emission year in which Texas sources were not subject to CSAPR for SO_2, EPA should use 2017, because that is the most recent year for which annual emissions data is available and in which Texas sources were not part of CSAPR for SO_2. EPA provides no justification for failing to compare the covered sources' actual emissions in 2017 with the emissions anticipated under the Texas SO_2 Trading Program. EPA arbitrarily declined to select 2017 as the baseline year for determining whether the Texas SO_2 Trading Program would reduce emissions and improve visibility.

In short, because the Texas SO_2 Trading Program authorizes covered sources to increase emissions relative to actual emissions in 2015, 2016, and 2017, the Trading Program cannot possibly achieve greater reasonable progress than source-specific BART, which would significantly reduce emissions. Indeed, by allowing sources to increase their emissions, the Texas SO_2 Trading Program will result in no progress at all toward the goal of eliminating haze pollution in direct violation of the Clean Air Act's visibility mandate.

Response: The comment contending that we arbitrarily elected not to use 2017 as the baseline emissions year for comparing the Texas SO_2 Trading Program to BART is incorrect. As noted by the commenter, we considered 2014 as the appropriate most recent year for comparing the Texas SO_2 Trading Program to BART for the purposes of meeting the requirement of 40 CFR 51.308(e)(2)(i)(D) given that Texas sources were subject to the CSAPR SO_2 trading program in 2015 and 2016 but are no longer subject to that program.[73] This analysis was included in our October 2017 final rule, at a time when 2017 emission data was not yet available. The Regional Haze Rule does not require us to select 2017 or any specific year as the baseline year for our assessment under 40 CFR 51.308(e)(2)(i)(D) of emission reductions achievable by the trading program, and commenter establishes no basis why we should have been required to update this analysis in our August 2018 proposal to affirm the October 2017 final rule. Our BART alternative analysis for Texas relied on 2014 data to be consistent with the CSAPR Better-than-BART analysis given that we are relying on the demonstration in the 2012 CSAPR Better-than-BART Rule (as affirmed in 2017) to show that the clear weight of evidence demonstrates that the Texas SO_2 Trading Program, which is modeled on the CSAPR trading programs, will provide for greater reasonable progress than BART in Texas as required under 40 CFR 51.308(e)(2)(i)(E).[74] We have provided a reasonable explanation for our selection of 2014 as the historical baseline year for the purposes of meeting the requirement of 40 CFR 51.308(e)(2)(i)(D).

The commenter's suggestion that the Texas SO_2 Trading Program should be structured to achieve additional emission reductions beyond the cap is effectively similar to other comments advocating for a lower cap or a more stringent program generally. As discussed elsewhere in this document and in Section III.A.2 of the preamble for today's final rulemaking, we continue to believe that the Texas SO_2 Trading Program is sufficiently stringent to meet the requirements to qualify as a BART alternative in the context of the 2012 CSAPR Better-than-BART rule and the 2017 CSAPR Better-than-BART affirmation finding. The comment contending that the Texas SO_2 Trading Program authorizes sources to increase emissions relative to actual emissions in 2015, 2016, and 2017, and authorizes greater pollution than the status quo mischaracterizes the Texas SO_2 Trading Program and reflects a misunderstanding of its purpose. First, we note that the Texas SO_2 Trading Program will achieve an average reduction of at least 54,213 tons per year over the 2014 emissions, which is the difference between the aggregate 2014 SO_2 emissions of the covered Texas EGUs (309,296 tons per year)[75] and the assurance level of 255,083 tons we are finalizing in

[73] 83 FR 43598.
[74] Note that the year 2014 is not relevant to the question of whether emissions achieved by the program are surplus to the baseline date for purposes of 40 CFR 51.308(e)(2)(iv). For purposes of meeting the requirements of 40 CFR 51.308(e)(2)(iv), the baseline date is 2000-2004.
[75] 84 FR at 61854.

this action.[76] In addition to setting an assurance level for the Texas SO_2 Trading Program of 255,083 tons, we are also imposing a penalty surrender ratio of three allowances for each ton of emissions in any year in excess of the 255,083-ton assurance level. This three-for-one penalty surrender ratio provides a strong disincentive against emissions exceeding the assurance level, and the assurance level thus represents the highest annual SO_2 emissions anticipated from units subject to the Texas SO_2 Trading Program and is therefore a conservatively high figure to compare against 2014 actual emissions levels.

Second, and notwithstanding our position that we appropriately selected 2014 as the baseline year for the purpose of this analysis, we note that even if we had selected 2017 as the baseline year, we disagree that the Texas SO_2 Trading Program would authorize greater pollution than the status quo given that the Trading Program now contains an assurance level limiting SO_2 emissions from Texas EGUs participating in the Trading Program where no prior SO_2 emission limits under the regional haze program existed for these sources. Therefore, we disagree that the Texas SO_2 Trading Program authorizes greater pollution than the status quo even under the assumption of 2017 as the baseline year for comparison against the Texas SO_2 Trading Program as the status quo "authorizes" much higher emissions (due to there being no enforceable program at all and the only limitations being the facilities' current permit limits), even if actual emissions happened to be below that level. As discussed in Section III.A.2 in the preamble of today's final rulemaking and in the section titled "Appropriateness of the Texas SO_2 Trading Program vs. Source-Specific BART FIP" of this document, we note that the Texas SO_2 Trading Program with the added assurance level we are finalizing in this action, also achieves significantly lower emissions relative to the Regional Haze Rule's baseline period for visibility for the first planning period.[77] These emission reductions that are secured by the Trading Program contribute to improvements in visibility from the baseline period for the first planning period and are permanent and enforceable as part of the long-term strategy for the State of Texas.

Further, the purpose of the program is not to achieve some particular quantum, much less a maximum quantum, of emission reductions as compared to some reference point for "current" emission levels. In fact, whether the Texas SO_2 Trading Program allows for a potential increase in emissions from recent or current emission levels is not the relevant question under the BART alternative provisions of the Regional Haze Rule. In order to satisfy the BART alternative test of 40 CFR 51.308(e)(2)(i)(E), the alternative must, on the clear weight of evidence, achieve greater reasonable progress in visibility improvements than would be achieved through the installation and operation of BART at the covered sources. This test calls for a comparison in stringency between two regulatory regimes, BART and the BART alternative. The Texas SO_2 Trading Program is modeled on and set at a stringency level comparable to CSAPR in Texas, such that the CSAPR Better-than-BART analysis may be relied upon in determining the adequacy of this program. As

[76] To address concerns regarding potentially higher SO_2 emissions in individual years from Texas EGUs participating in the Texas SO_2 Trading Program, on November 1, 2019, we signed a supplemental notice of proposed rulemaking that proposed to add assurance provisions to the Trading Program. We proposed to set an assurance level for the Texas SO_2 Trading Program of 255,081 tons and proposed to impose a penalty surrender ratio of three allowances for each ton of emissions in any year in excess of the 255,081-ton assurance level. As discussed in Section III.A.1 in the preamble of today's final rulemaking, we are making a minor correction and are finalizing an assurance level of 255,083 tons rather than the 255,081-ton assurance level we proposed in the November 2019 supplemental proposal.
[77] The Regional Haze Rule provides that the baseline period for the first planning period is 2000-2004. *See* 40 CFR 51.308(d)(2)(i).

discussed in Section III.A.2 in the preamble of today's final rulemaking, we find that we have satisfied the BART alternative test of 40 CFR 51.308(e)(2)(i)(E). Whether actual emissions may increase or decrease from some particular historical level under the program is immaterial so long as emissions remain below the level requisite to make the "greater reasonable progress" showing.

To the extent the commenter is asserting that certain aspects of the program, such as allocations to retired units, the availability of banking, and allocations from the Supplemental Allowance Pool, pose a risk that the program will fail to achieve the emission levels assumed in our final analysis, this theoretical concern is addressed by amendments to the program finalized in this action. To address concerns regarding potentially higher SO_2 emissions in individual years from Texas EGUs participating in the Texas SO_2 Trading Program, on November 1, 2019, we signed a supplemental notice of proposed rulemaking that proposed to add assurance provisions to the Trading Program. Under the assurance provisions, if the total emissions of the sources in the program in any year exceed the annual program budget by more than a variability limit of 16,688 tons, the emissions over that "assurance level" will trigger a requirement for some sources to surrender three allowances for each ton of emissions, providing a strong disincentive against emissions exceeding the assurance level. We are finalizing that supplemental proposal with minor amendments in this action.[78] As we explained in the supplemental proposal, the 255,083-ton assurance level effectively moots any concerns regarding annual emission performance under the program by establishing a cap implemented via the penalty surrender ratio. This is because when a mass-based trading program includes a "cap" on overall annual emissions, as the Texas SO_2 Trading Program now does with the addition of the assurance provisions, that overall "cap" on emissions set by the program (here, the assurance level) effectively determines the stringency of the program in each year. With the addition of an assurance level, the potential risk of an undue relaxation of the annual stringency in the program is minimized given that sources will remain strongly incentivized to keep annual emissions below the level at which the three-for-one surrender penalty is imposed. Thus, how allowances are allocated or banked within that cap does not affect the overall stringency of the program.[79]

We address elsewhere in this document comments contending that source-specific BART and presumptive BART would achieve greater emission reductions compared to the Texas SO_2 Trading Program.

Comment: The Texas SO_2 Trading Program fails to include measures that are essential to reducing SO_2 emissions. As described throughout these comments, the Texas SO_2 Trading Program suffers from multiple legal flaws, each of which is an independent reason that the Trading Program does not satisfy the Clean Air Act and the Regional Haze Rule. This subsection describes additional flaws in the structure of the Trading Program that will result in emissions from covered sources either staying at current levels or increasing. To be clear, even if EPA revised the Texas SO_2 Trading Program to include some or even all of the features described below, the Trading

[78] The final "assurance level" is 255,083 tons, which is the sum of the revised annual program budget of 238,395 tons plus the variability limit of 16,688 tons. As discussed in Section III.A.1 of the preamble for today's final action, for consistency with the assurance provisions, EPA is also making revisions to the Supplemental Allowance Pool provisions that will limit the combined total quantity of allowances issued in any year from the program budget and the Supplemental Allowance Pool to this same level of 255,083 tons.

[79] *See* 84 FR 61854.

Program would still not be a lawful BART alternative, given the many other legal deficiencies described in these comments. Moreover, even a "successful" cap and trade program cannot avoid localized impacts to particular Class I Areas (much less to local communities most impacted by large pollution sources). But the numerous flaws identified below shows that the Texas SO_2 Trading Program is not even an attempt to establish a cap and trade program that might actually reduce emissions beyond the overall cap.

There have been many examinations of EPA's Acid Rain Program (ARP) and CSAPR programs that note their successes and discuss opportunities for improvement. The EPA does not incorporate any of these "lessons learned" in constructing Texas SO_2 Trading Program and tailoring it to regional haze. The result is a program that will not reduce SO_2 emissions and is in fact designed to allow those emissions to increase.

Response: We address in other responses throughout this document, specific comments contending that the Texas SO_2 Trading Program contains legal flaws and that it does not satisfy the Clean Air Act and the Regional Haze Rule.

With regard to the comment that a cap and trade program cannot avoid localized impacts to particular Class I areas, we note that the Regional Haze Rule does not require that a BART alternative achieve greater visibility improvements than BART at each particular Class I area, and only requires that a BART alternative does not result in declines in visibility compared to the baseline in any Class I area. EPA's decision to authorize alternative measures, including emissions trading programs, subject to those requirements, in the original 1999 Regional Haze Rule is beyond the scope of this action. Further, the test EPA devised under 51.308(e)(3) for evaluating whether a BART alternative makes greater reasonable progress calls for an evaluation of whether there could be unacceptable localized visibility impacts under a BART alternative. In particular, the analysis asks whether visibility will decline in any Class I area under the BART alternative as compared with the baseline scenario. This evaluation was done as part of the 2012 CSAPR Better-than-BART analytic demonstration, which we relied upon in developing the Texas SO_2 Trading Program. That analysis showed no decline in visibility in any Class I area compared to the baseline emissions scenario. As explained in Section III.A.2 of the preamble of today's final rule and elsewhere in this document, Texas SO_2 Trading Program, as amended in today's final action, is designed to ensure that SO_2 emissions levels in each year under the Trading Program are similar to or less than what would have been realized from Texas EGUs from participation in the SO_2 trading program under CSAPR. Thus, EPA can rely on the 2012 and 2017 findings that CSAPR achieves greater reasonable progress than BART as evidence that the Texas program achieves greater reasonable progress than BART, in the context of the continued operation of the CSAPR ozone-season NO_X trading program (to which units in Texas remain subject) and the CSAPR annual NO_X and SO_2 trading programs.[80]

EPA disagrees that it must require emission reductions beyond the levels mandated by the Texas SO_2 Trading Program, as amended in this final action, given that the program satisfies the requirements of a BART-alternative under 51.308(e)(2). The basic objective of all cap and trade

[80] EPA's determination that Texas' participation in CSAPR for ozone-season NO_X satisfies NO_X BART for EGUs is final and we did not reopen that determination in our August 2018 proposal or our November 2019 supplemental proposal.

programs is to establish a cap on allowed emissions and then allow sources to determine how to comply with the cap in the most economical manner. The commenter's suggestion that the Texas SO_2 Trading Program should be structured to achieve additional emission reductions beyond the cap is effectively similar to other comments advocating for a lower cap or a more stringent program generally. As discussed elsewhere in this document and in Section III.A.2 of the preamble of today's final rulemaking, we continue to believe that the Texas SO_2 Trading Program is sufficiently stringent to meet the requirements to qualify as a BART alternative in the context of the 2012 CSAPR Better-than-BART rule and the 2017 CSAPR Better-than-BART affirmation finding. As explained in a previous response in this section of this document, we disagree that the Texas SO_2 Trading Program would authorize greater pollution than the status quo given that, as amended in this action, the Trading Program establishes an annual limit on SO_2 emissions from Texas EGUs participating in the Trading Program via the budgets and assurance level whereas no prior SO_2 emission limits of any kind under the regional haze program existed for these sources. We also do not agree that the existence of an academic literature concerning cap and trade programs means that new trading programs necessarily must incorporate new design features that may have been identified in the literature. This is particularly true in the case of a trading program such as this one which has been intentionally modeled on the CSAPR SO_2 trading program in order to ensure the continued applicability of EPA's previous determinations that the program is a satisfactory BART alternative.

Comment: EPA's cap is so high that it actually allows participating units to increase their SO_2 emissions. This violates the fundamental reason for any emission control program. The importance of setting an ambitious cap is one of the most oft-cited features of an effective cap and trade program. For instance, in an International Energy Agency Information Paper, Christina Hood states:

> If there is to be a market demand for allowances (and hence a market price), the system must be initially "short" – that is, the cap on emissions must be less than projected levels of emissions.
>
> Setting initial caps close to projected BAU [business as usual] emissions has sometimes led to problems with oversupply of allowances, when emissions levels have turned out to be lower than the level of the cap. A surplus of allowances can cause the market price to crash, leading to perceptions that emissions trading as a tool has failed.

Similarly, Richard Schmalensee states in a discussion paper that "It is clear from theory and experience that a robust market requires a cap that is significantly below BAU emissions."

EPA itself has recognized the importance of correctly setting the cap or baseline when it stated the following in its own guide for designing cap and trade programs:

> Setting the level of the emission cap is one of the most important decisions for policymakers and the regulating authority. In theory, the most economically efficient level for the emission cap is where marginal abatement costs are equal to

> marginal benefits from the reduced emissions (see Appendix A for further discussion). However, this level is often difficult to determine due to uncertain information. More generally, the cap should be set at a level that is expected to address the environmental and health problems of concern at an acceptable cost.

EPA has amassed an enormous amount of information concerning the "benefits of reduced emissions" in the form of the impacts of Texas EGU emissions on visibility at Class I Areas in Texas and other States. However, EPA has given no consideration to this important issue when setting the emission for the Trading Rule, because the current proposal contains no discussion or weighing of pros and cons of different emissions caps. EPA simply adopted the covered sources' SO_2 CSAPR allowances without considering the size of the overall cap and what benefits a reduced cap could bring. Then EPA inflated this cap even further with its Supplemental Allowance Pool. EPA's cap is above business as usual ("BAU") emissions, when it should have been below BAU emissions. As we note elsewhere, if implemented, this flooding of the allowance market will likely result in allowance prices that are so low that there will be no incentive for covered sources to install SO_2 controls (or otherwise reduce SO_2 emissions).

Response: We agree that the level of the program cap is a fundamental feature of any cap and trade program. However, as stated in a previous response, we disagree that the Texas SO_2 Trading Program would authorize greater pollution than the status quo given that the Trading Program establishes a cap on SO_2 emissions from Texas EGUs participating in the Trading Program where no prior SO_2 emission limits under the regional haze program existed for these sources. Further, we disagree that in developing a specific trading program, EPA must incorporate new design features that may have been identified in the academic literature, particularly when other legal and policy considerations weigh in favor of making the program similar in design to a specific previous program that does not include those design features. In this instance, the Texas SO_2 Trading Program was designed to qualify as a BART alternative in light of EPA's previous determinations regarding permissible BART alternatives, and for that reason was designed to be as similar as possible to the CSAPR SO_2 program. In particular, the level of the emissions cap is based on a proportionate share of the analogous emissions cap for Texas units under the CSAPR SO_2 program. We respond elsewhere to the comments concerning the Supplemental Allowance Pool and projected allowance prices.

Comment: EPA should eliminate the supplemental allowance pool. EPA's addition of a Supplemental Allowance Pool to provide compliance assistance to subject units and sources serves to inflate the cap and devalue allowances. The Texas SO_2 Trading Program reflects that EPA is more concerned with assuring that units have allowances to cover whatever level of emissions they want to emit than with designing a program to reduce SO_2 emissions. EPA should have set a cap below BAU levels that would have incentivized SO_2 reductions. EPA should have never included a Supplemental Allowance Pool.

Response: The commenter raises no issues with respect to the Supplemental Allowance Pool that are distinct from the commenter's broader criticisms of the stringency of the Texas SO_2 Trading Program, as represented by the level of the program budget plus variability limit. We respond to the commenter's criticisms regarding the overall stringency of the program elsewhere in this document. As discussed elsewhere, the Texas SO_2 Trading Program was designed to be similar

to the CSAPR SO_2 program and now, as amended in today's final action through the addition of the 255,083-ton assurance level and other amendments discussed in Section III.A.1 of the preamble for today's final rule, achieves a greater level of stringency than CSAPR would have, even accounting for the potential for emission shifting back into the remaining CSAPR region with the removal of Texas into its own intrastate trading region (see discussion at sections I.D and III.A.2 of the preamble for today's final rulemaking). We disagree with the commenter's assertion that the Supplemental Allowance Pool "serves to inflate the cap and devalue allowances" because the allocation of allowances out of the pool does not impact the absolute limitation on total annual emissions under the program represented by the assurance level. To address concerns regarding potentially higher SO_2 emissions in individual years from Texas EGUs participating in the trading program, we are finalizing the addition of assurance provisions to the Texas SO_2 Trading Program, including an assurance level of 255,083 tons. The assurance level effectively moots any concerns regarding annual emission performance under the program by establishing a cap implemented via the penalty surrender ratio. This is because when a mass-based trading program includes a "cap" on overall annual emissions, as the Texas SO_2 Trading Program now does with the addition of the assurance provisions, that overall "cap" on emissions set by the program (here, the assurance level of 255,083 tons) effectively determines the stringency of the program in each year. With the addition of an assurance level, the potential risk of an undue relaxation of the annual stringency in the program is minimized given that sources will remain strongly incentivized to keep annual emissions below the level at which the three-for-one surrender penalty is imposed. Thus, how allowances are allocated or banked within that cap does not affect the overall stringency of the program.[81]

Nonetheless, both the Supplemental Allowance Pool and the retention and reallocation of allowances that are originally allocated to units that have retired are comparable to the provisions in the CSAPR programs. Although we did not seek comment on and are not reopening any aspect of the CSAPR trading programs in this proceeding, we discuss the CSAPR SO_2 program as necessary to respond to the comments on the Texas SO_2 Trading Program.

Like the CSAPR SO_2 program, the Texas SO_2 Trading Program provides for most allowances to be issued through an initial allocation procedure with predetermined allocation amounts for individual sources, while also providing for some allowances to be issued through a separate procedure where the specific allocation amounts are determined each year based on methodologies included in the regulations. (Both programs are designed so that the proportion of allowances issued under the second procedure grows over time, as allowances that would otherwise have been allocated to units that have been retired for at least five years are shifted from the first procedure to the second procedure.) Under the CSAPR SO_2 program for Texas, the initial total quantity of allowances issued through the first procedure was 279,747. The units covered by the Texas SO_2 Trading Program would have received 238,395 of the allowances allocated under the first procedure, which is approximately 85% of the allowances initially allocated using the first procedure under the CSAPR SO_2 program, and this amount is the basis for the "Texas SO_2 Trading Program budget" established under the FIP promulgating the Trading Program.[82] Under the

[81] *See* 84 FR 61854.

[82] As discussed in Section III.A.1 of the preamble for today's final rulemaking, in this action we are revising the program budget from 238,393 tons to 238,395 tons in order to correct a data error with respect to the Newman plant that was made in the 2017 action establishing the Trading Rule.

CSAPR SO_2 program, the initial total quantity of allowances issued through the second procedure was 14,724. This amount was allocated under a "new unit set-aside" (NUSA) procedure which first allocated allowances to any qualifying new units and then allocated any remainder among existing units. The analogous amount under the Texas SO_2 Trading Program is the "Supplemental Allowance Pool budget" of 10,000 allowances, which is approximately 68% of the analogous amount under the CSAPR SO_2 program. Thus, the Supplemental Allowance Pool budget does not "inflate the cap" but actually adds a smaller amount to the total number of allowances issued under the Texas SO_2 Trading Program than the analogous provision under the CSAPR SO_2 program.

Further, in contrast to the procedures for allocating allowances from the CSAPR SO_2 program NUSA, the procedures for allocating allowances from the Supplemental Allowance Pool do not guarantee that all allowances in the pool will actually be allocated to sources, for two reasons. First, any allocations from the Supplemental Allowance Pool in a given year are contingent upon the occurrence of emissions exceeding the amounts of allowances already allocated for the year: Under the existing regulations, allowances may be allocated from the pool to a source with annual emissions exceeding its initial allocation, while under the regulations as revised in this action, allowances will be allocated from the pool only if all the sources in a common ownership group collectively have annual emissions exceeding the group's initial allocations. Because of this condition, combined with the shift of allowances from retired units to the Supplemental Allowance Pool over time, it is possible that in some years the combined total quantity of allowances issued as initial allocations and as allocations from the Supplemental Allowance Pool will not only be less than the sum of the Texas SO_2 Trading Program budget and the Supplemental Allowance Pool budget (238,395 + 10,000 = 248,395 allowances), but will also be less than the Texas SO_2 Trading Program budget.

Second, although any allowances added to the Supplemental Allowance Pool in a given year that are not allocated to sources in that year are "banked" for possible allocation in future years, the regulations also limit the total quantity of banked allowances that can be allocated to sources from the pool in a given year. Under the existing regulations, the limit on the number of banked allowances that can be allocated from the pool is 44,711 tons, with the result that the maximum total number of allowances that can be allocated from the pool in a year is 54,711 (10,000 annual addition to the pool + 44,711 banked allowances available for allocation = 54,711 total allowances available for allocation) plus any allowances added to the pool in that year from retired units. In this action, for consistency with the new assurance provisions, we are revising the limit on the total number of allowances that can be allocated to sources from the pool in a year to 16,688, which is the amount of the new variability limit, plus any allowances added to the pool in that year from retired units.[83] This revision effectively limits the number of allowances banked in the Supplemental Allowance Pool that can be allocated to sources in any year to 6,688 (16,688 total allowances available for allocation – 10,000 annual addition to the pool = 6,688 banked allowances available for allocation). Because of these limits on annual allocations of banked allowances, some allowances added to the Supplemental Allowance Pool may never be allocated to sources, which is clearly more stringent than the analogous NUSA provisions of the CSAPR SO_2 program.

[83] See Section III.A.1 of the preamble for today's final rulemaking.

Comment: EPA should reform its allowance distribution methodology. An obvious consequence of the Texas SO_2 Trading Program is that even if it eliminated its Supplemental Allowance Pool and lowered its cap to below BAU levels, it would still do nothing to anticipate and counter external market forces. A myriad of potential externalities could result in devaluation of the SO_2 allowance market. EPA's failure to incorporate into the Texas SO_2 Trading Program any of the features discussed below ensures that the Trading Program will not reduce emissions and will not make any progress, much less reasonable progress, toward eliminating haze.

A regular declining cap has a number of advantages: (1) it provides for known, predictable declines in SO_2, (2) it can counter externalities that may work to make the trading market irrelevant, and (3) it allows the participating EGUs time to plan and adjust. EPA did just this in its Group 1 SO_2 CSAPR program, when it implemented a decreased SO_2 budget for the Group 1 states in a Phase II revision. EPA failed to do this in the Trading Rule.

An allowance price floor can ensure that allowances retain a minimum value that helps maintain program relevance even in the face of competing regulations, low gas prices, unforeseen energy market trends, etc. As Burtraw notes regarding the ARP:

> If a price floor one-third below anticipated allowance prices had been in place, it would have triggered additional emissions reductions that would have led to additional social benefits of $8 billion per year over the last decade. The inability of the program to adapt to information about the marginal cost of emissions reductions that is revealed in the allowance price is an important flaw as cap-and-trade has been implemented to date in environmental policy.

The Texas SO_2 Trading Program fails to include an allowance price floor. The Texas SO_2 Trading Program lacks a provision regarding the regular recalculation of allowances that are awarded. Section 97.911 provides that the same number of allowances is awarded to each unit every year. This only serves to preserve the status quo and does not encourage SO_2 reduction. Regular recalculating of allowances in a "use it or lose it" fashion, in conjunction with a declining cap, would encourage SO_2 reduction. This could be done perhaps every three years using a similar methodology to how EPA initially awarded allowances under SO_2 CSAPR. As we discuss elsewhere, we have already recalculated allowances using that methodology using updated emission data and provide our calculations as part of our comments.

In addition, the Texas SO_2 Trading Program fails to include a requirement that allowances be immediately forfeited on retirement. EPA's rules governing source-by-source BART provide for a straightforward and logical method of treating retired units—once retired, that unit's emissions are gone forever. Retiring sources of pollution are treated under a remaining useful life analysis: through a five-factor analysis, an enforceable retirement date may negate the need for additional pollutant control on the premise that it may not be cost effective to compel the installation of new or upgraded controls where a facility would be retired in the near term. See 70 FR at 39169-70. The regulatory authority that allowed for those emissions cannot be transferred to another pollution source because the source-by-source BART determination is specific to that source. As a

consequence of this straightforward approach, each source's impact on the visibility at Class I areas can be determined.

In contrast, EPA's Texas SO_2 Trading Program provides allowances for an EGU's SO_2 allowance beyond its retirement. For instance, Section 97.911(a)(2) states that a unit that does not operate for two years will lose its allowance allocation in its fifth year following the first year of non-operation. Some of the EGUs already operate seasonally and it is quite possible others will do so in the future. Therefore, conditioning the forfeiture of allowances to two entire years of zero hours of operation is an unrealistic metric. An EGU that is otherwise uncompetitive could operate for only a few hours a year and thus retain its entire allowance allocation. That allowance could be traded, thus devaluing the allowance market.

A better approach would have been to require a regular recalculation of allowances, based on each unit's most recent history as we discuss above. This would also make moot the arbitrary 5-year wait for allowance retirement, which only serves to inflate the allowance market and devalue it. Furthermore, if a previously retired unit resumes operation, it should have to purchase allowances from the general allowance pool, instead of being able to purchase allowances from the Supplemental Allowance pool, as provided under Section 97.905(b)(4). No allowances from retired units should be transferred into the Supplemental Allowance Pool. Retired allowances should be just that—retired and removed from the allowance pool. To do otherwise devalues allowances and disincentivizes SO_2 reductions.

Section 97.926 provides for unlimited banking of allowance that never expire. Given how generous EPA is in distributing allowances, this is unnecessary. Banking of allowances discourages SO_2 reductions and devalues the allowance market. Also, banking of allowances proportionately favors companies with more units, as it allows them more freedom from reducing SO_2 (via inter-company allowance transfers) over companies with fewer units. The Texas SO_2 Trading Program fails to limit the amount of allowances any one company can accumulate and to place an expiration date on unused allowances.

Response: As stated in responses to several other comments, we disagree that in developing a specific trading program, EPA must incorporate new design features that may have been identified in the academic literature, particularly when other legal and policy considerations weigh in favor of making the program similar in design to a specific previous program that does not include those design features. Likewise, EPA is not required to incorporate new design features that may be suggested by a commenter. In this instance, the Trading Rule was designed to qualify as a BART alternative in light of EPA's previous determinations regarding permissible BART alternatives, and for that reason was designed to be as similar as possible to the CSAPR SO_2 program. Both the provisions establishing the amounts of the initial allocations to units under the Trading Rule and the treatment of the allocations to units that have been retired for at least five years are directly based on the analogous provisions in the CSAPR SO_2 program. As discussed in response to another comment on the Texas SO_2 Trading Program's Supplemental Allowance Pool, in those aspects of the overall allocation methodology where the Texas SO_2 Trading Program

allowance allocation provisions deviate from the CSAPR SO_2 program allowance allocation provisions, the Texas SO_2 Trading Program is generally more, not less, stringent. The commenter's principal purpose in suggesting that the Texas SO_2 Trading Program should use a different allocation methodology appears to be to advocate for further disincentivizing emissions below the overall program budget and assurance level by eliminating allowances that would have been allocated to retired units instead of providing for the potential reallocation of those allowances to other units. Neither the statute nor regulations require this. With respect to the commenter's claim that unlimited banking of allowances threatens to undermine the stringency of the program, we note that the addition of an assurance level above which allowances must be surrendered at a three-to-one penalty ratio is expected to serve as an effective "cap" on annual emissions, even if a relatively large bank of unused allowances were to build up. We also note that in order for a large bank of allowances to build up, the total emissions from sources over time must be lower than the total number of allowances issued over time, which would indicate that the program is successfully achieving the environmental objective that it was designed to meet. We address the commenter's general claims that the Texas SO_2 Trading Program is insufficiently stringent to qualify as a BART alternative elsewhere.

Comment: EPA has failed to request comment on, or otherwise consider, the projected price of allowances under the Trading Rule, and the impact of allowance prices on emissions reductions (or the lack thereof). As explained elsewhere, various features of the Texas SO_2 Trading Program are likely to result in allowance prices that are so low that units have no incentive to reduce emissions below the level of emissions for which allowances are allocated. This is yet another reason that the Texas SO_2 Trading Program will not reduce SO_2 emissions.

According to EPA, a fundamental tenet of any cap and trade program is that, "the cap and associated allowance market creates a monetary value for allowances, providing sources with a tangible incentive to decrease emissions." This is perhaps the single most important aspect of a successful emissions trading program because if market forces do not adequately value allowances, there is little to no incentive for sources to install pollution controls or take other measures to reduce emissions.

Unfortunately, that is exactly what has happened to EPA's two premier SO_2 cap and trade programs, the ARP and CSAPR:

- ARP SO_2 allowance prices averaged less than $1 per ton in 2016.
- CSAPR SO_2 Group 1 allowance prices started 2016 at $2.75 per ton and ended 2016 at $5.25 per ton.
- CSAPR SO_2 Group 2 allowance prices started 2016 at $5 per ton and ended 2016 at $5.25 per ton.

- CSAPR NO_X annual program allowances started 2016 at $80 per ton and ended 2016 at $6 per ton.

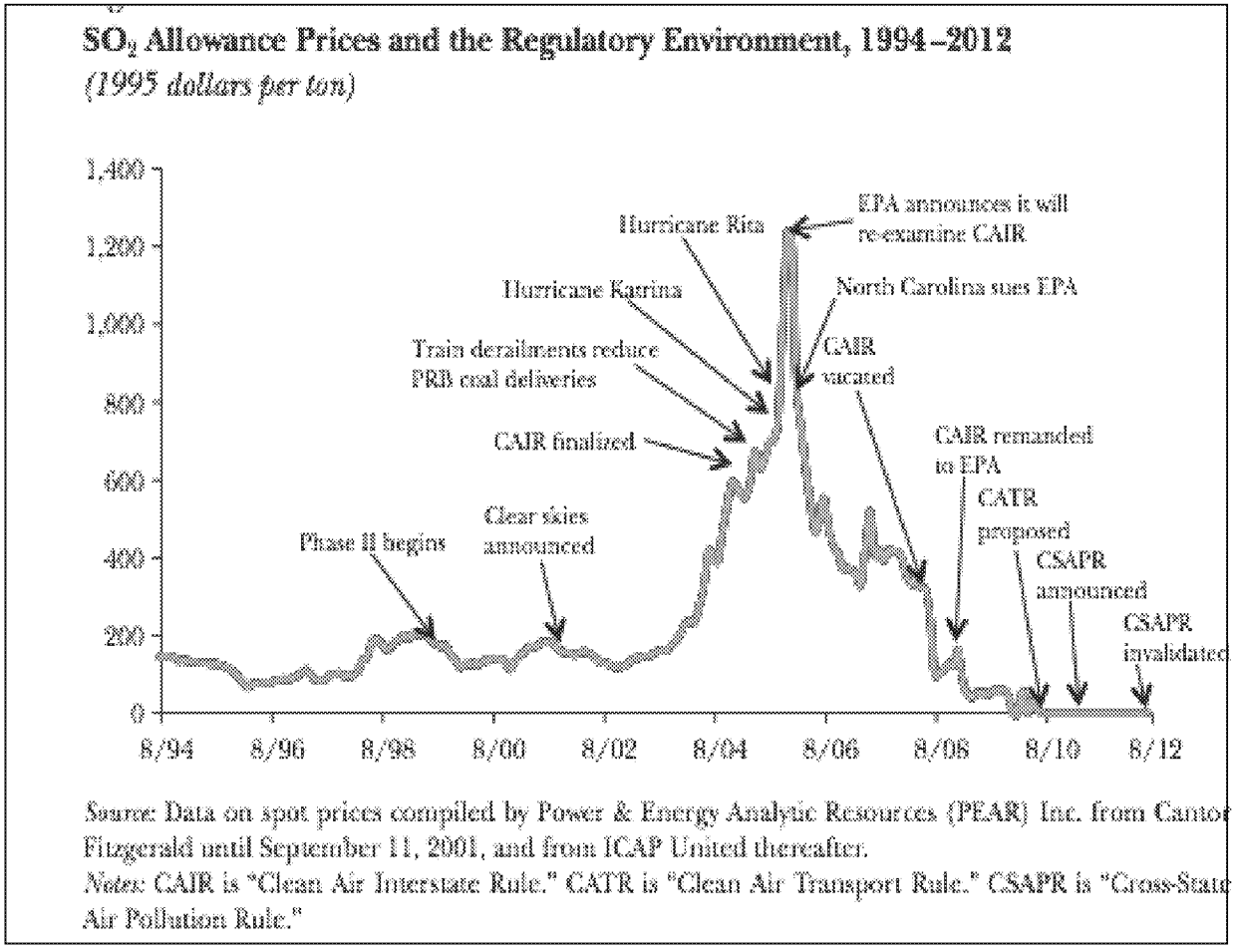
- CSAPR NO_X ozone season program allowances started 2016 at $182.5 per ton and ended 2016 at $142.5 per ton.

As can be seen from the above data, the 2016 average price of SO_2 allowances for the ARP was less than $1 per ton, making them almost worthless. Although the ARP was successful for many years, it no longer provides any incentive to reduce SO_2.

Similarly, CSAPR SO_2 allowances ranged between $2.75 and $5.25 per ton in 2016, providing little to no regulatory pressure to control SO_2. CSAPR Group 1 and Group 2 SO_2 allowance prices have continued their downward slide and were recently trading for $2.50 and $3.00/ton, respectively. EPA concedes this point when it states in relation to the above pricing, "CSAPR allowance prices were well below the marginal cost for reductions projected at the time of the final rule, and are subject, in part, to downward pressure from the available bank of allowances." In other words, it was cheaper to buy allowances than to reduce SO_2 emissions. Assuming the top end of this range, and a 30,000 ton reduction, compliance would have only cost an EGU owner $157,500 ($5.25/ton x 30,000 tons = $157,500). In comparison, EPA estimated in its January 4, 2017 BART FIP that a SO_2 scrubber capable of reducing these 30,000 tons would cost $259,141,000. This is over 1,600 times more expensive than simply purchasing the necessary allowances. To be sure, a SO_2 scrubber is not the only control an EGU could employ (although it would have been necessary to remove the entire 30,000 tons of SO_2 from the EGU in question). However, allowances at $5.25/ton are at least hundreds of times cheaper than any other control EPA evaluated.

There are many reasons why the price of allowances can collapse. In the case of the ARP, this is primarily due to external market forces that were unanticipated by the program. As the figure below indicates, much of the collapse of the ARP SO_2 allowance market was in fact due to the effect of CAIR, CSAPR, litigation of these programs, and although not shown on the graph, the National Ambient Air Quality Standards ("NAAQS") and Mercury and Air Toxics Standards ("MATS") programs. In other words, trading programs do not operate in a vacuum. There are a number of externalities that can serve as drivers to EGU owners for making economic decisions, including other regulatory programs. Trading programs can, however, remain pertinent if they contain minimum allowance prices—a feature that the ARP, CSAPR, and the Texas SO_2 Trading Program lack.

Figure 2. The Collapse of the SO_2 Allowances Market in the Acid Rain Program



EPA has stated that it modeled the Texas SO_2 Trading Program after the CSAPR SO_2 trading program. As a result, it is reasonable to conclude that the same or similar factors responsible for the collapse of the CSAPR SO_2 allowance market will come to bear on the Texas SO_2 Trading Program. Yet EPA has taken no steps to prevent that from happening. Also, EPA's plan to flood the market with an excess of allowances will only decrease demand for, and further devalue, allowances. In summary, it is likely that the price of SO_2 allowances will be so low there will be little to no regulatory incentive for participating sources to reduce SO_2 emissions below the overall cap, *if* a moment came where reductions were required to comply with the Texas SO_2 Trading Program.

Response: We did not seek comment on or reopen any aspect of the Acid Rain Program or the CSAPR trading programs in this proceeding, and we disagree that it was necessary in this proceeding to consider projected allowances prices under the Texas SO_2 Trading Program. We recognize that under a trading program, the price of allowances is related to the supply of and demand for allowances, and we consider the commenter's focus in this comment on raising allowance prices to be just another method of expressing the commenter's view that we should set a more stringent environmental objective, in this instance by lowering the supply of allowances

under the Trading Rule. However, we consider the most important consideration in designing a trading program to be the program's ability to ensure that its environmental objective is achieved, not whether the program sustains particular levels of allowance prices. As explained in Section III.A.2 of the preamble of today's final rule and discussed throughout this document, the Texas SO_2 Trading Program, as amended in today's final action, is designed to ensure that SO_2 emissions levels in each year under the Trading Program are similar to or less than what would have been realized from Texas EGUs from participation in the CSAPR SO_2 trading program (including accounting for emissions shifting to remaining CSAPR states as a result of Texas no longer participating in the interstate trading program), and for that reason is sufficiently stringent to meet the requirements for a BART alternative under 40 CFR 51.308(e)(2). The commenter suggests that even where a trading program has been specifically designed to achieve a desired total emissions goal – in this instance, ensuring that statewide emissions levels do not exceed the 317,100 tons-per-year benchmark for Texas SO_2 emissions established in the 2012 CSAPR Better-than-BART rulemaking – the ability of the program to in fact achieve that goal is not the relevant criterion by which we should evaluate the program, and that we should instead evaluate the program based on whether or not it also addresses other concerns raised by the commenter, including in this instance projected allowance price levels. We disagree with this suggestion. If allowance prices are low under the Texas SO_2 Trading Program, it will be because sources have achieved emissions below the levels required by the program cap, indicating that the program has succeeded in meeting the environmental objective it was designed to meet. We respond elsewhere to the commenter's assertions that the program is insufficiently stringent to qualify as a BART alternative.

Comment: The "CSAPR Better than BART" analyses upon which the Texas SO_2 Trading Program relies demonstrate that source-specific BART would make greater reasonable progress than CSAPR for Texas. EPA claims that because the agency concluded that CSAPR achieves greater reasonable progress than BART when averaged across all affected states, CSAPR necessarily achieves greater reasonable progress than BART in Texas. EPA's conclusion mischaracterizes both the law and the facts.

To begin, the legal test that EPA used during the original "Better-than-BART" rulemaking is fundamentally different than the test EPA must use here. EPA purported to show that CSAPR achieves greater reasonable progress than BART under 40 CFR § 51.308(e)(3), which requires that: "Visibility does not decline in any Class I area" and there "is an overall improvement in visibility, determined by *comparing the average differences* between BART and the alternative over all affected Class I areas." Pursuant to this test, EPA has never attempted to prove that CSAPR achieves better reasonable progress than BART at every Class I area or in every state. Instead, EPA has tried to show only that CSAPR achieves greater visibility improvement than BART when the visibility impacts of each program are averaged across all Class I areas. See, e.g., 77 FR at 33650. Given that EPA averaged the visibility improvement from CSAPR over all the affected Class I areas in the eastern half of the country, Texas was able to take advantage of reductions from other states without having to reduce its SO_2 emissions as much as it would have had to do under source-by-source BART.

By contrast, the legal test for the Texas SO_2 Trading Program cannot rest on improvements from CSAPR in other states. Instead, EPA must demonstrate that the Texas SO_2 Trading Program is superior to BART in Texas alone (*i.e.*, when examining the visibility

improvement at only the Class I areas affected by Texas sources). *See* 40 CFR § 51.308(e)(2)(i), (e)(3).

If EPA had been required to demonstrate that CSAPR achieved greater reasonable progress than BART in only the Class I areas affected by Texas, EPA could not have made this demonstration. This is clear from even a cursory examination of the Technical Support Document for the CSAPR Better-than BART demonstration. Below we present Table 2-4 of that document:

Table 4. 2014 Annual SO_2 Emissions in the Transport Rule Region and Non-Transport Rule Region States for the 2014 base case and each Control Scenario
(Figures are in thousands of tons)

Transport Region States	**2014 Base Case**	**Nationwide BART**	**Transport Rule + BART-elsewhere**	**Non-Transport Region States**	**2014 Base Case**	**Nation - wide BART**	**Transport Rule + BART-elsewhere**
Alabama	417.3	181.5	168.5	Arkansas	99.4	38.1	39.7
Georgia	170.3	151.4	93.6	Arizona	35.6	24.6	24.6
Illinois	141.6	116.1	133.7	California	7.3	7.4	7.3
Indiana	727.8	454.5	202.9	Colorado	62.1	22.4	26.6
Iowa	133.1	43.9	83.8	Connecticut	3.8	1.9	1.9
Kansas	69.8	19.8	49.1	Delaware	2.2	2.1	2.1
Kentucky	488.0	164.9	125.4	Florida	143.6	77.5	79.8
Maryland	42.9	36.5	28.6	Idaho	0.2	0.2	0.2
Michigan	269.4	141.4	174.3	Louisiana	118.2	81.2	92.6
Minnesota	70.9	56.5	50.1	Maine	2.4	2.6	2.4
Missouri	390.3	107.9	181.8	Massachusetts	13.4	8.4	8.4
Nebraska[9]	73.1	32.9	71.2	Mississippi	31.0	16.3	17.8
New Jersey	38.9	26.1	6.1	Montana	15.4	5.9	6.7
New York	42.9	42.1	18.8	Nevada	14.4	14.8	14.8
North Carolina	126.0	130.9	74.0	New Hampshire	6.5	4.7	5.2
Ohio	851.2	546.7	190.0	New Mexico	11.9	10.8	11.7
Pennsylvania	509.6	222.6	134.5	North Dakota	103.6	37.7	37.0
South Carolina	213.3	114.0	101.5	Oklahoma	138.0	41.4	41.4
Tennessee	284.5	321.3	66.7	Oregon	11.3	0.2	0.2
Texas	**453.3**	**139.3**	**266.6**	Rhode Island	0	0.0	0.0
Virginia	77.3	78.7	53.9	South Dakota	29.7	2.4	2.5
West Virginia	498.5	165.1	90.4	Utah	33.5	32.7	32.1
Wisconsin	130.5	52.1	51.4	Vermont	0.3	0.3	0.3
				Washington	3.4	3.4	3.4
Total	**6,220.50**	**3,346.20**	**2,416.90**	Wyoming	51.8	37.2	42.9
				Total	**939.00**	**474.20**	**501.60**

The left side of this table summarizes the SO_2 emissions for the states that participated in CSAPR at the time (December 2011)—the Transport Region States. Three annual SO_2 emissions columns are presented:

- A 2014 base case which, "contains emissions for 2014 based on predicted growth and existing emissions controls,
- A Nationwide BART case which, "examined SO_2 and NO_X emissions from all EGUs nationwide after the application of BART controls to all BART-eligible EGUs."
- A Transport Rule + BART-elsewhere case in which, "SO_2 and NO_X emissions reductions attributable to the Transport Rule were applied in the 28-state Transport Rule region and BART controls were applied to all BART-eligible EGUS outside the Transport Rule region that are not subject to Transport Rule requirements." Note "Transport Rule" is CSAPR.

A comparison of the annual emissions modeled for Texas in Table 2-4 shows that the annual emissions for Texas under the Transport Rule + BART-elsewhere case (266,600 tons per year) are almost double what would have occurred under the Nationwide BART case (139,300 tons per year). A similar table for NO_X, however, reveals that these figures are almost identical, indicating that Texas' performance (or lack thereof) in CSAPR Better-than-BART is due to the influence of its SO_2 emissions. EPA later added 50,157 tons of SO_2 to Texas' budget to account for errors it had made in is CSAPR analysis, bringing the total for the Transport Rule + BART-elsewhere case to well over double what would have occurred under the Nationwide BART case. Together these points indicate that Texas was an obvious drag on the CSAPR Better-than-BART demonstration, so that the CSAPR Better-than-BART demonstration would have worked better had Texas not participated in CSAPR. In fact, EPA said as much when it removed Texas from CSAPR:

> Treating Texas EGUs in the CSAPR + BART-elsewhere scenario as subject to SO_2 BART instead of CSAPR SO_2 requirements would therefore have reduced projected SO_2 emissions by between 127,300 tons and approximately 177,800 tons in this scenario, *thereby improving projected air quality in this scenario relative to projected air quality in both the Nationwide BART scenario* and the base case scenario (in which the projected SO_2 emissions from Texas EGUs would not change).

EPA tries to avoid the conclusion that the Texas SO_2 Trading Program is far worse than BART by citing to its 2012 Sensitivity Analysis Memo that indicated that Texas could emit as much as 317,100 tons of SO_2 and CSAPR would remain better-than-BART. But EPA blatantly misrepresents and misapplies that information. The fact that CSAPR would purportedly remain better-than-BART under such an increase in Texas emissions is a reflection of the size and location of the projected emission reductions in many of the other participating states. Such a mitigating influence does not exist under EPA's Texas SO_2 Trading Program. Also, the visibility improvement discussed in that memo, like CSAPR Better-than-BART, was averaged across Class I areas located in the participating states. Again, EPA cannot count on the mitigating effect of other states' reductions and must assess visibility improvement (or lack thereof) at only the Class I areas affected by Texas' emissions.

In short, when only emissions from Texas sources are considered, the record contains no evidence that CSAPR would achieve greater reasonable progress than BART. Indeed, EPA has concluded just the opposite, that removing Texas from CSAPR for SO_2 emissions would dramatically reduce emissions and improve visibility. Thus, the "Better-than-BART" rulemakings provide no support for EPA's claim that the Texas SO_2 Trading Program will make greater reasonable progress than BART.

Response: We disagree that EPA must demonstrate that the Texas SO_2 Trading Program is better than BART by examining visibility improvement at only Class I areas in Texas and Class I areas in other states affected by Texas sources. As explained in our proposal affirming the Texas SO_2 Trading Program, the 2012 demonstration that CSAPR, as finalized and amended in 2011 and 2012, meets the Regional Haze Rule's criteria for a demonstration of greater reasonable progress than BART is also the primary evidence that the Texas SO_2 Trading Program achieves greater reasonable progress than BART.[84] In the 2012 CSAPR Better-than-BART Rule, the EPA relied on an analytic demonstration that included an air quality modeling study showing that CSAPR results in greater improvements in average visibility across all affected Class I areas as compared to adopting source-specific BART. Our finding with respect to the Texas program relies on the demonstration underlying our CSAPR Better-than-BART Rule and our 2017 CSAPR Better-than-BART affirmation (including the basis for our denial of a petition for reconsideration in the latter,[85] as discussed in Section I.D of the preamble of our final rule). Thus, we find that given the particular circumstances in this case, we are not required to focus only on Class I areas in Texas and Class I areas in other states affected by Texas sources. Rather, we are assessing the Texas program in the context of the larger CSAPR Better-than-BART analysis. We find that due to the specific circumstances in this case, as described above, it is reasonable and appropriate to consider improvements in average visibility across all affected Class I areas in our assessment of the Texas SO_2 Trading Program to demonstrate that it is better than BART. The amendments to the Texas SO_2 Trading Program we are finalizing in this action ensure that EGU emissions under the Texas program will remain well below the amount assumed in the BART-alternative sensitivity analysis utilized for the 2012 CSAPR Better-than-BART determination (*i.e.*, 317,100 tons), and thus visibility levels at Class I areas impacted by sources in Texas are anticipated to be at least as good as (and likely better than) the levels projected under Texas participation in the larger CSAPR SO_2 trading program. Further, as discussed in Section I.D. of the preamble for today's final rulemaking, EPA has also now accounted for the potential for emission shifting back into the remaining CSAPR region with the removal of Texas into its own intrastate trading region, as discussed in our response to a November 28, 2017 petition for reconsideration.[86] To the extent that this potential for emission shifting posed any concern that the CSAPR Better-than-BART analysis could not be relied upon by Texas or other states, this issue has been resolved through the analysis set forth in that denial.

---

[84] 83 FR 43586, at 43599.

[85] See U.S. EPA, Denial of Petition for Partial Reconsideration of "Interstate Transport of Fine Particulate Matter: Revision of Federal Implementation Plan Requirements for Texas" (82 FR 45481; Sept. 29, 2017) (EPA-HQ-OAR-2016-0598). A copy of the denial of petition letter sent to the petitioners and the denial of petition Notice of Availability published in the Federal Register are available at Docket ID EPA-HQ-OAR-2016-0598.

[86] *Id.*

Comment: Our objections to EPA using a SO_2 CSAPR-like approach for BART aside, EPA's reliance on the CSAPR Better-than-BART demonstration is based on a false premise that the Texas SO_2 Trading Program is functionally equivalent to CSAPR. EPA claims that because its BART alternative "has been designed to achieve SO_2 emission levels that are functionally equivalent to those projected for Texas' participation in the original CSAPR program," it has demonstrated the "weight of evidence" required by section 51.308(e)(2)(i)(E). However, by using the term "functionally equivalent," EPA admits that its Texas BART alternative demonstration is not actually equivalent to the CSAPR Better-than-BART demonstration, but is something different.

EPA later explains its use of the term "functionally equivalent" when it states, "Covered sources under the BART alternative in this FIP represent 89% of all SO_2 emissions from all Texas EGUs in both 2016 and 2017, and approximately 85% of CSAPR allocations for existing units in Texas." EPA lists points that it claims mitigates this discrepancy, but they do not overcome the differences between the two programs in a way that sufficiently addresses visibility concerns or that allows it to demonstrate a weight of evidence.

On that basis and a Q/d analysis, EPA excludes from the Texas SO_2 Trading Program a number of units that were covered under CSAPR. However, EPA presents no real analysis of the visibility impacts of these excluded units. Some of these excluded units have scrubbers or other types of SO_2 control, but EPA has not evaluated them for possible upgrades, which was a significant part of the technical evaluation in its January 4, 2017 proposal. These include Oklaunion, W. A. Parish 8, Oak Grove Units 1 and 2, Twin Oaks Units 1 and 2, and Sandy Creek. In addition, we note several flaws in how EPA performed its Q/d analysis. All of these flaws point to arbitrary deviations from EPA's original Q/d testing methodology:

- EPA based its Q/d analysis on 2009 emissions without providing any reasoning for selecting that year of data, other than it already had it available from a previous analysis. Typically, EPA considers a 3-5 year range of data and attempts to account for data variability from year to year. Updated emission data is readily available from EPA's own site. EPA's selection of year 2009 data is therefore arbitrary.

- Although the Twin Oaks facility had a Q/d greater than EPA's stated cutoff of 10, it was nonetheless excluded because EPA estimated that the Q/d of each of its units were likely less than 10. However, EPA's Q/d analysis for other sources was done on a facility basis and deviating from that in order to exclude a source is arbitrary.

- Oklaunion's Q/d was much higher than 10, at 85. Yet again, EPA arbitrarily deviates from its Q/d metric by stating, "Annual emissions of SO_2 in 2016 from this source were 1,530 tons, less than 1% of the total annual emissions for EGUs in the state and only 988 tons in 2017. The most recent emissions from this facility are small relative to other non-BART units included in the program and we have not included Oklaunion in the trading program." Here, EPA considered SO_2 emissions from a year other than 2009—on which all of the Q/d analyses were based—when doing so suits its goal of excluding a unit. EPA also brings in a percentage cutoff that was also not used in considering other units. This deviation from its original Q/d test is arbitrary.

EPA excludes units that came online after 2009 because these units, "would be permitted and constructed using emission control technology determined under either BACT or LAER review, as applicable and we do not consider the potential visibility impacts from these units to be significant relative to those coal-fired EGUs participating in the program." EPA makes no comparison between the levels of control under BACT or LAER versus BART for these units. In fact, BART has been demonstrably more stringent than either BACT or LAER. This is easily ascertained by simply reviewing some of EPA's recent BART determinations in which SO_2 scrubbers are required at control levels at 95% or greater and comparing them to BACT and LAER determinations.

The opt-in provision is yet another feature of the Texas SO_2 Trading Program that makes the Trading Program not functionally equivalent to CSAPR. EPA has included an opt-in provision in Section 97.904(b), and Section 97.911(b) describes how allowances for opt-in units shall be awarded. For CSAPR, EPA removed the opt-in provision for good reasons. Chief among them, "EPA has determined that the inclusion of opt-in units in the Transport Rule trading programs would undermine the rule's objective of addressing emissions in each state that significantly contribute to nonattainment or interfere with maintenance in other states." EPA further stated:

> For example, after a unit would opt in, process or fuel changes made for economic reasons (rather than due to any regulatory requirements), or installation of new emission controls or fuel-switching conducted to meet future, non-Transport Rule regulatory requirements, could result in emission reductions that would have occurred "anyway" (i.e., even if the unit had not opted in), and the opt-in unit would be allocated allowances for the portion of its baseline emissions that would be removed by these "anyway" reductions. Allocations above the cap to opt-in units making ''anyway'' emission reductions would convert these reductions into extra allowances (i.e., authorizations to emit) usable by covered EGUs to meet their requirements to hold allowances for emissions.

EPA further noted that "the final Boiler MACT rule, of course, is simply one example of how allocations for ''anyway'' reductions could occur and undermine the statutory requirements of the Transport Rule." EPA does not appear to have provided any provision in Texas SO_2 Trading Program to guard against such "anyway" reductions, which would further serve to inflate its already overly generous allowance pool. Consequently, the opt-in provision further undermines the Texas SO_2 Trading Program.

In sum, the Texas SO_2 Trading Program is not sufficiently similar to CSAPR for a simple comparison between Texas' overall emissions to suffice for a weight of evidence determination. EPA excludes units that participated in SO_2 CSAPR without any real technical analysis of the visibility impacts of those units it is excluding. The above-cited examples of EPA's arbitrariness in excluding units are why section 51.308(e)(3) exists—to quantify speculative claims of BART alternatives. By inappropriately relying on the CSAPR Better-than-BART demonstration, EPA is injecting section 51.308(e)(4), under which states were allowed to rely on CSAPR, into section 51.308 (e)(2), the weight of evidence determination.

This is effectively a reinterpretation of EPA's rules and provides a compelling reason why EPA should have performed its Texas SO_2 BART determination under section 51.308(e)(3).

Response: We continue to believe that the Texas SO_2 Trading Program will achieve SO_2 emission levels that are functionally equivalent to those that had been previously projected for Texas' participation in the original CSAPR program and that our reliance on the original CSAPR Better-than-BART determination for the clear weight of evidence demonstration required under section 51.308(e)(2)(i)(E) was thus appropriate in this case. Indeed, as amended in this final action, EPA is confident that the Texas program is more stringent than the CSAPR program (including when accounting for any potential emission shifting into the CSAPR region as a result of Texas no longer being a part of the interstate trading program).[87] What we mean by the phrase "functionally equivalent" is that while the two programs are not identical, the differences between the Texas SO_2 Trading Program and CSAPR are either not significant or work to demonstrate the relatively greater stringency of the Texas SO_2 Trading Program as compared to CSAPR. As the commenter notes, in our August 27, 2018 proposal affirming the Texas SO_2 Trading Program, we listed several points that help demonstrate the relative stringency of the Texas SO_2 Trading Program as compared to CSAPR.[88] These points are summarized below:

- Covered sources under the Texas SO_2 Trading Program represent approximately 85% of CSAPR allocations for existing units in Texas. Covered sources under the Texas SO_2 Trading Program represent 89% of all SO_2 emissions from all Texas EGUs in both 2016 and 2017.

- The remaining 11% of 2016 and 2017 emissions from Texas EGUs not covered by the BART alternative come from gas units that rarely burn fuel oil or from coal-fired units that on average are better controlled for SO_2 than the covered sources and generally are less relevant to visibility impairment. As a result, any shifting of generation to non-covered sources, as might occur if a covered source were to reduce its operation in order to remain within its SO_2 emissions allowance allocation, is expected to result in fewer emissions to generate the same amount of electricity.

- We also noted that the non-inclusion of a large number of gas-fired units that rarely burn fuel oil reduces the amount of available allowances for such units that would typically and collectively be expected to use only a fraction of their CSAPR allowance allocations. Many of these sources typically emit at levels much lower than their allocation level.

- Emissions projections under CAIR and CSAPR showed that Texas sources were anticipated to purchase allowances from out-of-state sources. In contrast to CSAPR, the Texas SO_2 Trading Program does not allow purchasing of allowances from out-of-state sources. This will ensure that emissions reductions resulting from implementation of the Texas SO_2 Trading Program will take place in Texas instead of a neighboring state. In this respect, implementation of the

[87] See U.S. EPA, Denial of Petition for Partial Reconsideration of "Interstate Transport of Fine Particulate Matter: Revision of Federal Implementation Plan Requirements for Texas" (82 FR 45481; Sept. 29, 2017) (EPA-HQ-OAR-2016-0598). A copy of the denial of petition letter sent to the petitioners and the denial of petition Notice of Availability published in the Federal Register are available at Docket ID EPA-HQ-OAR-2016-0598.
[88] 83 FR 43586, at 43591.

Texas SO_2 Trading Program can be expected to result in greater visibility benefits at Texas Class I areas than CSAPR.

Furthermore, in the final analysis for this action, we have updated our emissions assumptions to be even more conservative (i.e., we assume the potential for higher emissions) for units that were in the CSAPR program but not covered by the Texas SO_2 Trading Program. In the August 2018 proposal, we had used an assumption that emissions from these units could be as high as 27,500 tons per year.[89] However, in the updated analysis presented for comment in the November 2019 SNPRM, we adjusted this assumption to 35,000 tons per year. This number reflects emissions for the past five years (2014-2018), which EPA regards as a conservative assumption for emissions performance from these units. Even when this conservative figure is added to the highest annual emissions anticipated from units under the Texas program, 255,083 tons per year (i.e., the assurance level for the program), the total figure is 290,083 tons per year. As EPA explains in Section III.A.2 of the preamble for our final rule, that figure is still 27,019 tons below the 317,100 ton per year emissions level for Texas that EPA assumed in the BART-alternative sensitivity analysis utilized for the 2012 CSAPR Better-than-BART determination.

Based on the above points and the fact that the combination of (1) the source coverage for the Texas SO_2 Trading Program, (2) the total allocations for EGUs covered by the program, and (3) recent and foreseeable emissions trends from those EGUs both covered and not covered by the program will result in future EGU emissions in Texas that are less than the SO_2 emission levels forecast in the 2012 Better-than-BART demonstration for Texas EGU emissions assuming CSAPR participation,[90] it is not reasonable to expect that the Texas SO_2 Trading Program would result in less visibility benefit in Texas Class I areas compared to Texas' participation in CSAPR. Thus, we continue to believe that we have sufficiently demonstrated that differences in source coverage between the Texas SO_2 Trading Program as amended in this final action and CSAPR are either not significant or work to demonstrate the relative stringency of the Texas SO_2 Trading Program as compared to CSAPR.

Our decision to exclude from the Texas SO_2 Trading Program certain units that were covered under CSAPR was not arbitrary as the commenter contends, but rather was generally based on both the results of a Q/d analysis as well as the units' potential to impact visibility at Class I areas based on our consideration of certain circumstances specific to each unit. Based on our consideration of the above, we found it appropriate to exclude certain units that were previously covered under CSAPR from the Texas SO_2 Trading Program. For example, some units are already operating SO_2 controls and we thus do not consider the potential visibility impacts from these units to be significant relative to those coal-fired EGUs participating in the program, and we therefore excluded them from the Texas SO_2 Trading Program. In some cases, relatively new units that began operation after 2009 have been permitted and constructed using emission control technology determined under either Best Available Control Technology (BACT) or Lowest Achievable Emission Rate (LAER) review, as applicable. As we explained in our August 2018 proposal affirming the Texas SO_2 Trading Program, because these newer units are already operating BACT or LAER controls, we do not consider the potential visibility impacts from these units to be significant relative to those coal-fired EGUs participating in the program. The commenter contends

[89] 83 FR 43586, at 43602.
[90] 83 FR 43586, at 43591.

that in these cases, we should have compared the levels of control under BACT or LAER versus BART for these units because BART can in some cases be more stringent than either BACT or LAER. However, given the much greater anticipated visibility impact from uncontrolled coal-fired EGUs participating in the program, we continue to believe that it is reasonable for us to focus our efforts on these uncontrolled coal-fired EGUs while excluding the newer, already controlled EGUs from the Texas SO_2 Trading Program.

The commenter specifically identifies Oklaunion, W.A. Parish Unit 8, Oak Grove Units 1 and 2, Sandy Creek Unit 1, and the Twin Oaks facility as units that were covered under CSAPR, but which were excluded from the Texas SO_2 Trading Program. Although Oklaunion has a Q/d greater than 10, we ultimately excluded Oklaunion from the Texas SO_2 Trading Program based on our consideration that the facility consists of one coal-fired unit that is not BART-eligible; annual emissions of SO_2 in 2016 from this source were 1,530 tons, which is less than 1% of the total annual emissions for EGUs in the state; and annual SO_2 emissions were only 933 tons in 2017. In short, the most recent emissions from this facility are small relative to other non-BART units included in the program.[91]

As noted in our November 2019 supplemental proposal, American Electric Power announced in 2018 its plans to shut down the Oklaunion Power Plant by September 2020.[92]

With regard to W.A. Parish Unit 8, this unit is not BART-eligible, but is co-located with BART-eligible units. Although we decided to include most coal-fired units that are not BART-eligible but are co-located with BART-eligible EGUs in the Texas SO_2 Trading Program to prevent any significant shifting of generation and SO_2 emissions from participating sources to non-participating sources within the same facility, we decided not to include W.A. Parish Unit 8 because this unit has a scrubber installed that maintains an SO_2 emission rate four to five times lower than the emission rate of the other coal-fired units at the facility that are uncontrolled and are participating in the Texas SO_2 Trading Program (Parish Units 5, 6, and 7).[93] Therefore, we expect that any shifting of generation from the participating units at the Parish facility to Parish Unit 8 would not present a problem, and instead would result in a decrease in overall emissions from the source.

Similarly, with regard to Oak Grove Units 1 and 2, and Sandy Creek Unit 1, these are relatively newer coal fired units that began operation in late 2009 or after, are not BART eligible and have scrubbers installed that maintain SO_2 emission rates much lower than the uncontrolled units included in the program.[94] Thus, we did not include Oak Grove Units 1 and 2, and Sandy Creek Unit 1 for participation in the Texas SO_2 Trading Program.

Although the Twin Oaks facility was identified as having a Q/d greater than 10, we did not include it in the trading program based on its relatively low potential to impact visibility at Class I areas. For instance, the facility does not include any BART-eligible EGUs; the Q/d for this facility

---

[91] 83 FR 43597.
[92] See 84 FR at 61853 n. 20.
[93] 83 FR 43596.
[94] *Id.* 43601.

is 14.2, which is significantly lower than that of other Texas facilities on our list with a Q/d value over 10;[95] and the estimated Q/d for each individual unit (Units 1 and 2) is less than 10. Considering the above, we do not consider the potential visibility impacts from Twin Oaks Units 1 and 2 to be significant relative to the other coal-fired EGUs in Texas with Q/d's much greater than 10 and therefore did not include them in the program.[96] We also note that annual SO_2 emissions from Twin Oaks Units 1 and 2 in 2017 – 2019, which are the three most recent years for which annual emissions data are available, have been well below the 2009 emissions level of 4,707 tons of SO_2.[97]

Thus, we believe the results of the Q/d analysis as well as our consideration of unique circumstances specific to each unit, as discussed above, are sufficient information to justify excluding certain units from the Texas SO_2 Trading Program that were included under CSAPR, without necessitating a quantitative examination of the visibility impact of excluding these units. Further, the inclusion or not of these units is demonstrated elsewhere in the record to ultimately not affect EPA's conclusions regarding the appropriate stringency of the program or its viability as a BART alternative. EPA took account of units previously covered by CSAPR but not by the Texas program—including all of the units assessed here for inclusion in the program—in determining that the Texas program is a viable BART alternative. EPA assumed a conservatively high level of annual emissions of 35,000 tons for these units in its analysis demonstrating the program is functionally equivalent in stringency to CSAPR.

With regard to the comment contending that we arbitrarily selected 2009 as the emissions year in our Q/d analysis, we note that to identify facilities that may impact visibility at Class I areas in our October 2017 final rule, we relied on an already existing Q/d analysis that we prepared as part of the December 2014 proposal to address Texas' reasonable progress requirements, and which was based on 2009 emissions.[98] In that proposed action, we also reviewed 2010 and 2011 emission data that became available as we were developing that proposed rule. We determined that the only EGU facility that was above the Q/d for 2010 and 2011 compared to the 2009 analysis was the Oak Grove facility, which came online in late 2009. As we discuss above, this is a new facility that is equipped with scrubbers and we determined it was not necessary to include it in the Texas SO_2 Trading Program. The Regional Haze Rule does not require us to select a range of years for the emissions data for our Q/d analysis nor does it identify a particular year that must be used for

---

[95] *Id.* FR 43596-97. As discussed in our August 2018 proposal, after identifying the BART-eligible sources included in the Texas SO_2 Trading Program, we evaluated additional sources for potential inclusion in the trading program based on their potential to impact visibility at Class I areas. We used a Q/d value of 10 as a threshold for identification of facilities that may impact visibility at Class I areas and could be included in the trading program. We identified a total of 17 facilities in Texas with Q/d values greater than 10, some of which are not BART-eligible and had not already been identified for inclusion in the program. The Q/d values for these 17 facilities range from 14.2 (for Twin Oaks) to 425.4 (for Monticello).

[96] *Id.* FR 43597.

[97] Annual SO_2 emissions from Twin Oaks Units 1 and 2 were 2,472 tons in 2017; 2,523 tons in 2018; and 2,408 tons in 2019. See excel spreadsheet "Twin Oaks- SO_2 annual emissions_2009 and 2017-2019.xlsx," available in the docket for this action.

[98] See the TX RH FIP TSD that accompanied our December 2014 proposal to address reasonable progress requirements for Texas (79 FR 74818 (Dec 16, 2014)), and the Excel file "2009statesum_Q_D.xlsx." These files are available in Docket ID EPA-R06-OAR-2014-0754, see Document ID EPA-R06-OAR-2014-0754-0007 and EPA-R06-OAR-2014-0754-0007-05.

the emissions data. We have the discretion to select the emissions data year as long as we provide a reasonable justification for our selection, as we have done in this case.[99]

With regard to the comment regarding the opt-in provision, we appreciate the commenter's input on whether that provision differs from the provisions of the CSAPR SO_2 program in a manner that could decrease the relative overall stringency of the Texas SO_2 Trading Program. In our November 2019 supplemental proposal, we proposed to modify the regulations to terminate the opt-in provision, and we are adopting that proposed modification in this final action.

Comment: In adopting the SO_2 CSAPR Better-than-BART demonstration, EPA faces a Catch-22 that it cannot overcome. In designing CSAPR, EPA assigned state budgets and allocations based on unique circumstances that existed at that time, but which for Texas are now largely obsolete. EPA set state budgets to address states' impacts on downwind states that were expected to have problems attaining or maintaining certain clean air standards. EPA removed Texas from the SO_2 portion of CSAPR, so the original impetus for assigning its budget is gone. In addition, the emissions for many of the units in question have changed significantly, and even the modeling platform EPA used in its CSAPR analysis is far out of date and effectively obsolete.

EPA used the IPM version 4.10 (https://www.epa.gov/airmarkets/ipm-analyses-final-cross-state-air-pollutionrule-csapr) and did not update it even after Texas' SO_2 budget was increased by 50,157 tons. The current version of IPM is version 6 and previous versions included 5.13, 5.14, 5.15, and 5.16. IPM relies on the NEEDS database of basic geographic, operating, air emissions, and other data on EGUs, which is similarly out of date. Even planned updates to IPM version 4.10 were extensive:
https://www.epa.gov/sites/production/files/201507/documents/planned_updates_to_ipm_v.4.10.pdf
.

Elsewhere in our comments we provide more detail to these and other problems in EPA's reliance on SO_2 CSAPR to design the Texas SO_2 Trading Program to satisfy SO_2 BART in Texas. In its misguided zeal to mimic SO_2 CSAPR, EPA faced a Catch-22: unlike what EPA typically does in analyzing BART, in developing the Texas SO_2 Trading Program, EPA did not account for new circumstances, updated emissions and other data, etc., because if it had, the way allowances were awarded would by necessity be different. Instead, EPA arbitrarily adopted the same CSAPR SO_2 allocations pointing to the CSAPR Better-than-BART demonstration under section 51.308(e)(2)(i)(E) as justification, in lieu of performing a new demonstration under section 51.308(e)(3), as EPA should have done.

Below we illustrate how EPA's arbitrary deviation from its usual technical approach of using the most up-to-date data would have changed the allowance distribution of the Texas SO_2 Trading Program. These updates include the retirements of Welsh 2; Big Brown Units 1 and 2; Monticello Units 1, 2, and 3; and Sandow 4 and 5. Additional updates could have included rule provisions for properly dealing with the impending retirement of the two JT Deeley units instead of its current method of treating "retired" allowances, which provides no incentive to reduce SO_2 emissions.

[99] 83 FR 43597.

CSAPR assigned allocations on the basis of a unit's heat input from 2006-2010, and its emissions from 2003-2010. EPA utilized a detailed ten-step approach in assigning allocations using the heat input and emissions from that period. Had EPA re-applied the CSAPR allocation methodology using updated information, it would have discovered that the allocations in many instances would have changed significantly. We performed that analysis and summarize it below. In so doing, we used the same number of years as in the original CSAPR methodology, but we shifted the year ranges forward to include updated information.

In the first case we analyzed, we did not remove retired units. We simply used the original CSAPR methodology to revise the CSAPR allocations while using updated data. In the summary tables below, EPA's current Texas SO_2 BART alternative allocations are in the fourth column from the left (EPA SO_2 BART Allocations) and our recalculated CSAPR allocations are in the third column from the left (Recalculated EPA TX SO_2 BART Allocations). The absolute value difference between those columns is in the right most column.

Table 4. Case 1- Updated EPA Texas SO_2 BART Alternative Updated Allocations Using CSAPR Methodology

Facility Name	Unit ID	Recalculated EPA TX SO_2 BART allowance (tons)	EPA TX SO_2 BART Allocations (tons)	Absolute Value Difference (tons)
Big Brown	1	9,624	8,473	1,151
Big Brown	2	9,602	8,559	1,043
Coleto Creek	1	10,406	9,057	1,349
Graham	2	1	226	225
H W Pirkey Power Plant	1	7,339	8,882	1,543
Harrington Station	061B	4,744	5,361	617
Harrington Station	062B	4,752	5,255	503
Harrington Station	063B	5,062	5,055	7
J T Deely	1	6,027	6,170	143
J T Deely	2	5,973	6,082	109
Limestone	LIM1	12,186	12,081	105
Limestone	LIM2	13,678	12,293	1,385
Martin Lake	1	12,647	12,024	623
Martin Lake	2	11,511	11,580	69
Martin Lake	3	10,272	12,236	1,964
Monticello	1	5,256	8,598	3,342
Monticello	2	5,412	8,795	3,383
Monticello	3	10,402	12,216	1,814
Newman	2	1	1	0
Newman	3	1	1	0
Newman	4	2	2	0
O W Sommers	1	4	55	51
O W Sommers	2	5	7	2
Sam Seymour	1	9,330	7,979	1,351
Sam Seymour	2	10,166	8,019	2,147
Sandow	4	10,313	8,370	1,943

Stryker Creek	2	2	145	143
Tolk Station	171B	7,608	6,900	708
Tolk Station	172B	8,469	7,062	1,407
W A Parish	WAP4	2	3	1
W A Parish	WAP5	9,419	9,580	161
W A Parish	WAP6	10,277	8,900	1,377
W A Parish	WAP7	7,997	7,653	344
Welsh Power Plant	1	7,082	6,496	586
Welsh Power Plant	2	6,006	7,050	1,044
Welsh Power Plant	3	6,808	7,208	400
Wilkes Power Plant	1	3	14	11
Wilkes Power Plant	2	2	2	0
Wilkes Power Plant	3	2	3	1
Totals		**238,393**	**238,393**	**31,052**

In the first case, because we did not remove any of the units that had retired, the total allocations remained at 238,393 tons. However, because the emissions and heat inputs changed with the updated data, almost every unit's allocations changed, some by more than 3,000 tons.

Table 5. Case 2- Updated EPA Texas SO_2 BART Alternative Updated Allocations Using CSAPR Methodology and Removing Retired Units.

Facility Name	Unit ID	Recalculated EPA TX SO_2 BART allowance (tons)	EPA TX SO_2 BART Allocations (tons)	Absolute Value Difference (tons)
Coleto Creek	1	10,081	9,057	1,024
Graham	2	1	226	225
H W Pirkey Power Plant	1	7,339	8,882	1,543
Harrington Station	061B	4,596	5,361	765
Harrington Station	062B	4,604	5,255	651
Harrington Station	063B	4,904	5,055	151
J T Deely	1	5,839	6,170	331
J T Deely	2	5,787	6,082	295
Limestone	LIM1	11,805	12,081	276
Limestone	LIM2	13,251	12,293	958
Martin Lake	1	12,252	12,024	228
Martin Lake	2	11,151	11,580	429
Martin Lake	3	9,951	12,236	2,285
Newman	2	1	1	0
Newman	3	1	1	0
Newman	4	2	2	0
O W Sommers	1	4	55	51
O W Sommers	2	5	7	2
Sam Seymour	1	9,039	7,979	1,060
Sam Seymour	2	9,848	8,019	1,829
Stryker Creek	2	2	145	143
Tolk Station	171B	7,370	6,900	470
Tolk Station	172B	8,204	7,062	1,142

W A Parish	WAP4	2	3	1
W A Parish	WAP5	9,125	9,580	455
W A Parish	WAP6	9,956	8,900	1,056
W A Parish	WAP7	7,748	7,653	95
Welsh Power Plant	1	6,861	6,496	365
Welsh Power Plant	3	6,595	7,208	613
Wilkes Power Plant	1	3	14	11
Wilkes Power Plant	2	2	2	0
Wilkes Power Plant	3	2	3	1
	Totals	**176,332**	**176,332**	**16,456**

In the second case, we removed those units which had retired, but we retained the JT Deely units. Because of this, and the fact that the emissions and heat inputs changed with the updated data, again almost every unit's allocations changed. The total allocations were reduced from 238,393 tons to 176,332 tons. This represents a decrease of 62,061 tons or an approximately 26% change. Therefore, had EPA simply updated the emissions using the original CSAPR methodology and removed the retired units' allocations, the Texas SO_2 Trading Program would not be as awash in excess allowances, which disincentivizes SO_2 reduction.

Note, here we are not contemplating moving these 62,061 tons into the Supplemental Allowance Pool as Section 97.911(a)(2) now provides. Rather, these allowances should never have been in the allowance pool in the first place.

We object to EPA's use of section 51.308(e)(2)(i)(E), its failure to follow its own requirements in performing a weight of evidence determination under that section, and the EPA's use of CSAPR in its better-than-BART demonstration. Those objections notwithstanding, we suspect that EPA knows that it should have updated the allowances in its SO_2 trading program as we describe above. We further suspect that EPA realizes that had it done so, the result would have been a much different distribution of emissions than was assumed in SO_2 CSAPR. Thus, its already strained apples to oranges weight of evidence determination, in which it simply pointed to the CSAPR Better-than-BART demonstration, would have evaporated.

Response: As stated in responses to several other comments in this document, we disagree that in developing a specific trading program, EPA must incorporate new design features, particularly when other legal and policy considerations weigh in favor of making the program similar in design to a specific previous program that does not include those design features. Likewise, EPA is not required to incorporate new design features that may be suggested by a commenter and is not required to update every data element used in the rulemaking. In this instance, the Texas SO_2 Trading Program was designed to qualify as a BART alternative in light of EPA's previous determinations regarding permissible BART alternatives, and for that reason was designed to be as similar as possible to the CSAPR SO_2 program. Both the amounts of the initial allocations to units under the Texas SO_2 Trading Program and the treatment of the allocations to units that have been retired for at least five years are directly based on the analogous provisions in the CSAPR SO_2 program. As discussed in response to another comment on the Texas SO_2 Trading Program's Supplemental Allowance Pool, in those aspects of the overall allocation methodology where the Texas SO_2 Trading Program allowance allocation provisions deviate from the CSAPR

SO_2 program allowance allocation provisions, the Texas SO_2 Trading Program is generally more, not less, stringent.

With respect to the commenter's point that the amount of the CSAPR SO_2 program budget for Texas was initially determined based on our assessments of the state's interstate transport obligations at the time of the CSAPR rulemaking, we agree with the statement but do not consider the point relevant to this final action. The origins of the CSAPR budgets are immaterial to this action. Along with certain budget adjustments that were addressed through sensitivity analyses, the CSAPR budgets were used in our 2012 CSAPR Better-than-BART determination and therefore remain relevant for purposes of our determination in this action that the Texas SO_2 Trading Program qualifies as a BART alternative in the context of the 2012 CSAPR Better-than-BART determination.

With respect to the commenter's identification of alternative possible distributions of allowances among the units covered by the program, we do not believe that altering the distribution of allowances while leaving the total number of allowances the same would change the stringency of the program, although it could address concerns regarding whether the distribution among the sources is equitable. As none of the sources covered by the program have raised equity concerns about the initial allocations and given that we do not understand the commenter to be raising such concerns, we see no reason to redistribute the initial allocations. It is clear from the comment that the commenter's main objective in suggesting that the allowance allocations should be recalculated is to put forward the commenter's view that certain units that have retired since the allocations under the CSAPR SO_2 program were determined should not receive allocations under the Texas SO_2 Trading Program at all, and that the allocations that would have gone to those units should be eliminated from the program budget instead of being reallocated among the remaining units. We address the comments regarding the stringency of the program cap elsewhere.

With regard to the commenter's position that allowances allocated to units that retire should be eliminated from the budget instead of being reallocated, that is of course an option in designing a trading program, but it is not a requirement, and it is not a feature of the CSAPR SO_2 program on which the Texas SO_2 Trading Program was modeled. We were not required and did not find it necessary to take such an approach in the Texas SO_2 Trading Program in order to ensure that the program qualifies as a BART alternative in the context of the 2012 and 2017 CSAPR Better-than-BART determinations.

As discussed in Section III.A.2 of the preamble for our final rulemaking and throughout this document, we find justification for the BART alternative under the "clear weight of the evidence" that the Texas SO_2 Trading Program will provide greater reasonable progress than would be achieved through the installation and operation of BART at the covered sources. This means of validating a BART alternative, described by one Court as the "catch-all," is permitted by 40 CFR 51.308(e)(2)(i)(E). 40 CFR section 51.308(e)(2)(i)(E) requires a determination, under the specific criteria laid out at 40 CFR 51.308(e)(3) or otherwise based on the clear weight of evidence, that the trading program or other alternative measure achieves greater reasonable progress than would be achieved through the installation and operation of BART at the covered sources. Thus, we are allowed but not required to validate the BART alternative under the test set out at 40 CFR 51.308(e)(3), contrary to the claim made by the commenter. As explained in Section III.A.2 of the

preamble for our final rulemaking, the BART alternative EPA is taking final action to affirm here is supported by the clear weight of the evidence. Specifically, with respect to SO_2 emissions from the covered BART-eligible units, because the Texas SO_2 Trading Program, as amended in this final action, is designed to ensure that emissions levels in each year under the Trading Program are similar to or less than what would have been realized from Texas EGUs from participation in the CSAPR SO_2 trading program, EPA can rely on the 2012 and 2017 findings that CSAPR achieves greater reasonable progress than BART as evidence that the Texas program achieves greater reasonable progress than BART, in the context of the continued operation of the CSAPR ozone-season NO_X trading program (to which units in Texas remain subject) and the CSAPR annual NO_X and SO_2 trading programs.[100]

Comment: The intrastate SO_2 trading program for certain EGUs in Texas is an appropriate BART alternative and satisfies all SO_2 BART requirements. TCEQ supports the EPA's affirmation that the October 2017 BARTFIP satisfies Texas' obligations for BART and specifically supports the EPA determination that the intrastate SO_2 trading program for certain EGUs in Texas is an appropriate BART alternative and satisfies all SO_2 BART requirements.

We received comments from AEP, LCRA, NRG Texas, SPS, and Vistra supporting the October 2017 FIP establishing an intrastate trading program capping emission of SO_2 from certain EGUs in Texas and the determination that this program meets the requirements for an alternative to BART for SO_2.

We received comments responding to whether SO_2 BART would be better addressed through a source-by-source approach (source-specific BART), the October 2017 Texas SO_2 Trading Program, or some other appropriate BART alternative. NRG Texas and SPS support the October 2017 SO_2 trading program over the adoption of a source-by-source approach to address the BART requirements for units subject to BART in Texas. AEP, NRG Texas, and Vistra similarly agree with the EPA that a BART alternative can be implemented in lieu of source-specific BART determinations. AEP states that the trading program will allow operational flexibility in complying with BART obligations. All the comments received from EGU owners are in support of the October 2017 SO_2 trading program as an appropriate BART alternative. Vistra also believes that it is appropriate that EPA respect Texas' choice to meet BART compliance through a BART alternative.

We received a comment from AEP stating that the SO_2 trading program is a satisfactory BART alternative due to real data clearly demonstrating that actual emissions are on the trend well below the projected numbers used to establish source-specific BART.

Response: We appreciate the commenter's support of our FIP that establishes an intrastate trading program that caps emissions of SO_2 from certain EGUs in Texas and includes the determination that this program meets the requirements for an alternative to BART for SO_2.

---

[100] EPA's determination that Texas' participation in CSAPR for ozone-season NO_X satisfies NO_X BART for EGUs is final and we did not reopen that determination in our August 2018 proposal or our November 2019 supplemental proposal.

Comment: The opt-in provision to the SO_2 trading program should be retained. We received comments regarding the opt-in provision in the Texas SO_2 Trading Program. AEP and NRG Texas support EPA's retention of provision 40 CFR § 97.904(b) that provides the opportunity for certain units to opt-in to the Texas SO_2 Trading Program. AEP also supports the EPA's identification of sources covered by the SO_2 trading program. AEP additionally states that allowing additional units to opt-in provides trading opportunities and would facilitate a more robust trading program, and participation by additional units could minimize the concern expressed by some of the risk of shifting generation from covered to non-covered sources. NRG Texas supports excluding Parish Unit 8 from the SO_2 trading program as long as the opt-in provision is maintained.

Response: While we appreciate the comments provided regarding the opt-in provision, we note that we proposed a supplemental proposal published in the Federal Register on November 14, 2019 that included a proposal to terminate the opt-in provisions in the Texas SO_2 Trading Program.[101] We proposed to terminate the opt-in provisions in response to comments we received on our August 27, 2018 proposal affirming certain aspects of our SIP approval and of the FIP that promulgated the intrastate trading program. One of these comments asserted that the opt-in provision weakened the functional equivalence of the Texas SO_2 Trading Program to CSAPR.[102] The commenter cited EPA's determination not to include opt-in provisions in the CSAPR trading programs on the basis that opt-in provisions would undermine achievement of the CSAPR program's emission reduction objectives. The commenter also cited EPA's discussion of the reasons for this determination, including the difficulty of distinguishing new emission reductions from reductions that opt-in sources would have made anyway, and the consequent likelihood that the amounts of allowances allocated to the sources would exceed their starting emissions levels. The allocations to the sources opting in would thus introduce "extra" allowances into the CSAPR trading programs, increasing the quantity of allowances available to be traded to other sources and thereby decreasing the programs' stringency. Because we believe that these concerns about potentially introducing "extra" allowances also apply to the existing opt-in provisions in the Texas SO_2 Trading Program, we proposed to terminate the opt-in provisions in the Texas SO_2 Trading Program.[103] After considering the comments we received on the supplemental proposal, which we address elsewhere in this document, we have decided to finalize our supplemental proposal to terminate the opt-in provision.

i. Allowance Allocations and Methodology

Comment: EPA's BART alternative is arbitrary and capricious because it allocates emission credits to sources that have already retired. EPA cannot approve or issue an implementation plan that would interfere with "any . . . applicable requirement" of the Clean Air Act. 42 USC § 7410(l); see also id. § 7410(a)(2)(A) (each plan "shall" include enforceable emission limits or measures as necessary to meet the applicable requirements of the Act). Title V of the Act flatly prohibits the operation of, or emission of air pollutants from, any source or the emission of air

[101] 84 FR 61851.
[102] 84 FR at 61856.
[103] 84 FR at 61855.

pollutants except in compliance with a valid permit issued by the state permitting authority. See, e.g., id. § 7661a(a) et seq.

Under the proposed affirmation of the Texas SO_2 Trading Program, EPA would continue to allocate more than 54,000 annual SO_2 emission credits to seven EGU units—Big Brown Units 1 and 2, Monticello Units 1, 2, and 3, Sandow Unit 4, and Welsh Unit 2—which have already retired and relinquished their operating permits. See the following files "V.B._Sandow054 Void Letter," "V.B._Air OP_65-27695," and "V.B._O64 Monticello Void" attached as Ex. 8, 9, and 10, respectively; 83 FR at 43599-600 (Table 6-Allocations for Texas EGUs Subject to the FIP SO_2 Trading Program). Because those EGUs have already relinquished their operating permits, and are therefore prohibited from emitting any SO_2 pollution, already-retired units could not use allowances to cover their own emissions. Instead, the only lawful option would be for already-retired units to transfer allowances to existing units, which could then increase their emissions above the levels authorized by the allowances they otherwise had received. This is arbitrary and capricious because, as explained throughout these comments, the Texas SO_2 Trading Program already grants far too many allowances, even without granting allowances to already-retired units. Specifically, even if one does not count allowances to already-retired units, the Texas SO_2 Trading Program allocates more allowances to existing units than those units emitted in 2015, 2016, and 2017. Granting allowances to already-retired units exacerbates this by further allowing units to increase emissions relative to recent emission levels, and by failing to make any progress toward eliminating haze pollution.

Nor can EPA claim credit for the emission reductions resulting from the deactivation of those units. Under the Regional Haze Rule, EPA must demonstrate that "the emission reductions resulting from the emissions trading program or other alternative measure will be surplus to those reductions resulting from measures adopted to meet requirements of the CAA as of the baseline date of the SIP." 40 CFR § 51.308(e)(2)(iv). Because Big Brown, Monticello, Sandow, and Welsh 2 have already retired and abandoned their operating permits under Title V of the Clean Air Act, they are not entitled to emit any amount of SO_2 under the Clean Air Act. Moreover, the emission reductions associated with the retirement of those units has already occurred and are binding under Title V of the Clean Air Act. As a result, EPA cannot claim that the Texas SO_2 Trading Program itself results in any "surplus" emission reductions that are not already required of those plants under Title V of the Clean Air Act.

Nor would there be any merit to an argument that the Texas SO_2 Trading Program caused or contributed to the retirement of these units. SWEPCO retired Welsh Unit 2 in April 2016, long before the Texas SO_2 Trading Program was finalized. *See* Welsh Power Plant Environmental Retrofit Project, *available at* https://www.swepco.com/info/projects/Welsh/, attached as Ex. 14. And while the other units were retired after the Texas SO_2 Trading Program was finalized, Luminant made the decision to retire its units before the Texas SO_2 Trading Program was issued. Specifically, Luminant's public announcement of its intention to retire Monticello was made on October 6, 2017, and the announcement of the retirement of Sandow and Big Brown was made on October 13, 2017—before the Texas SO_2 Trading Program was issued on October 17, 2017. *See* Luminant Announces Decision to Retire Monticello Power Plant, *available at* https://www.luminant.com/luminant-announcesdecision-retire-monticello-power-plant/ (attached

as Ex. 15); Luminant to Close to Texas Power Plants, *available at* https://www.luminant.com/luminant-close-two-texas-power-plants/ (attached as Ex. 16).

In other words, these emission reductions from the retired units cannot be credited towards determining the overall emissions impact of the Texas SO_2 Trading Program.

Response: The commenter claims that EPA cannot take credit for any of the emission reductions associated with the recent retirements of Texas power plants in order to satisfy a required demonstration that the emission reductions resulting from any emissions trading program or other alternative measure will be "surplus to those reductions resulting from measures adopted to meet requirements of the Clean Air Act." 40 CFR § 51.308(e)(2)(iv). We disagree with this comment for two reasons. First, our demonstration that the Texas SO_2 Trading Program qualifies as a BART alternative does not assume or depend on the retirements of these units, but rather is based on the overall design and budget of the Trading Program in the context of the 2012 and 2017 CSAPR Better-than-BART determinations. That demonstration, as explained in Section III.A.2 of the preamble for our final rulemaking, compares the stringency of the Texas SO_2 Trading Program to the CSAPR SO_2 trading program to establish that EPA can continue to rely on the CSAPR "Better-than-BART" finding in conducting its analysis of whether the Texas intrastate trading program satisfies the requirements for a BART alternative at 40 CFR 51.308(e)(2). Second, even if the program's qualification as a BART alternative somehow did rely on the emission reductions attributable to retirements, the Title V permits for Big Brown Units 1 and 2, Monticello Units 1, 2, and 3, Sandow Unit 4, and Welsh Unit 2 were not terminated to meet a CAA requirement, and there is no prohibition against allocating emission allowances under the Texas SO_2 Trading Program to these sources (just as such allowances may be allocated to recently retired units in the CSAPR trading programs). Thus, any emission reductions resulting from the retirements of these units indeed can be considered "surplus to those reductions resulting from measures adopted to meet requirements of the CAA as of the baseline date of the SIP," as required under 40 CFR 51.308(e)(2)(iv). Additionally, we note that the baseline date for the FIP for purposes of meeting the requirements of 40 CFR 51.308(e)(2)(iv) is 2000-2004.[104] These retirements all occurred after the baseline. Thus, regardless of the reason for the retirements and whether they were to meet any other CAA requirement, the resulting emission reductions in theory could have been taken into account as part of a BART-alternative. However, to be clear, EPA's demonstration that the Texas SO_2 Trading Program qualifies as a BART alternative does not assume or rely on the retirements of these units

Further, as we explained in the November 2019 supplemental proposal,[105] the assurance level we are adding in this final action effectively moots any concerns that allocations to retired units and/or allowance banking will undermine the stringency of the program by establishing a cap implemented via a three-for-one surrender penalty. With the addition of the assurance provisions, the Texas SO_2 Trading Program now includes a "cap" on overall annual emissions. This overall "cap" on emissions (i.e., the assurance level) set by the program effectively determines the stringency of the program in each year. With the addition of this assurance level, the potential risk

[104] We note we used 2014 as the historical baseline year for comparing the Texas SO_2 Trading Program to BART for the purposes of meeting the requirement of 40 CFR 51.308(e)(2)(i)(D), as discussed in Section III.A.2 of the preamble for our final rulemaking.
[105] 84 FR at 61854.

of an undue relaxation of the annual stringency in the program is minimized given that sources will remain strongly incentivized to keep annual emissions below the assurance level in any given year.

Moreover, we disagree that, because allowances allocated to retired units can be transferred to and used for compliance by units that continue to operate, it is therefore arbitrary and capricious to allocate the allowances to the retired units. A fundamental feature of a trading program is the flexibility that allows sources to determine how to shift responsibility for compliance with the overall cap by transferring allowances from one source to another. This is as true for allowances that have been allocated to units that have retired as it is for allowances that have been allocated to units that continue to operate. We are finalizing our affirmation of the Texas SO_2 Trading Program without changes to the emissions allocations for Big Brown Units 1 and 2, Monticello Units 1, 2, and 3, Sandow Unit 4, and Welsh Unit 2.

Comment: The total number of allowances that can be allocated in a control period from the Supplemental Allowance Pool should remain the same as the EPA finalized in the October 2017 FIP. After the EPA finalized the BART FIP in October 2017 (82 FR 48324), the EPA became aware of some participating units that shut down in late 2017 and early 2018 as well as two additional, proposed participating unit shutdowns. In the August 2018 proposal affirming the October 2017 FIP (83 FR 43586), the EPA proposed an alternate calculation to determine the total number of allowances that could be allocated in a control period from the Supplemental Allowance Pool. This proposed alternative downwardly adjusts the total number of allowances that can be allocated, from 54,711 to 41,335 tons. Considering the EPA's solicitation of comment of how shutdowns should impact allocations of retired units for a period of five years and solicitation of comment of this impact on the alternate proposal, the EPA has not provided any explanation as to why the maximum amount of allowances allocated from the Supplemental Allowance Pool should be adjusted downward, other than to state that the final number of 41,335 tons is appropriate based on the omission of the annual allocations for the participating units projected to be permanently retired as of January 1, 2019. The EPA should retain the maximum distribution of 54,711 tons from the pool reflecting the reality that electric energy consumption in the state will not decrease merely because some units participating in the program have ceased operation by the start of the program compliance date. Retaining the maximum distribution of 54,711 tons will offer existing, operating participating units, both coal- and gas-fired, compliance flexibility should they realize an increase in annual emissions resulting from increased generation output. The purpose of the Supplemental Allowance Pool is to support those units that, regardless of the reason, exceed their general allocations.

Response: We appreciate commenter's concerns. On November 14, 2019, we published a supplemental notice of proposed rulemaking to seek public input on changes to the Texas SO_2 Trading Program as a result of comments received during the comment period for the August 2018 proposal to affirm the October 2017 final rule.[106] The supplemental proposal sought public input on changes to the Supplemental Allowance Pool, and also sought input on the addition of assurance provisions to the Texas SO_2 Trading Program. The proposed assurance provisions would establish a variability limit of 16,688 tons, which is 7% of the Texas SO_2 Trading Program budget, and would apply a 3-to-1 surrender ratio to emissions in any year that exceed the assurance level of

[106] 84 FR 61850.

255,083 tons, which is the sum of the variability limit and the revised annual budget of 238,395 tons. After considering all comments we received, including those on the supplemental proposal, we are finalizing the proposed addition of the assurance provisions. In addition, for consistency with the new variability limit, we are reducing the number of allowances that can be allocated from the Supplemental Allowance Pool in any year to 16,688 tons plus any allowances added to the pool in that year from retired units. The effect of this revision is that the total number of allowances that can be issued in any year, considering both initial allocations and allowances issued from the Supplemental Allowance Pool, will equal the 255,083-ton assurance level.

Comment: We received comments from AEP, NRG Texas, SPS, and Vistra supporting EPA's proposal to reduce the available allowances in the Supplemental Allowance Pool and thus the total number of allowances available per year, such that the total number of allowances would be adjusted from 54,711 tons to 41,335 tons.

Response: We appreciate commenters' input. As noted elsewhere in this document, we are finalizing amendments to the Supplemental Allowance Pool and adding assurance provisions to the Texas SO_2 Trading Program. The new assurance provisions establish a variability limit of 16,688 tons, which is 7% of the Texas SO_2 Trading Program budget, and establish a 3-to-1 penalty surrender ratio on emissions exceeding in any year the assurance level of 255,083 tons, which is the sum of the variability limit and the revised annual budget of 238,395 tons. For consistency with this new variability limit, we are also reducing the number of allowances that can be allocated from the Supplemental Allowance Pool in any year to 16,688 tons plus any allowances added to the pool in that year from retired units. The effect of this revision is that the total number of allowances that can be issued in any year, considering both initial allocations and allowances issued from the Supplemental Allowance Pool, will not exceed the program's assurance level of 255,083 tons. This revision to the Supplemental Allowance Pool provisions is consistent with and reinforces the disincentive created by the assurance provisions against emissions exceeding the assurance level.

Comment: SPS believes it is appropriate to restrict the allocations available from the Supplemental Allowance Pool by excluding the annual allowance allocation from units that permanently retired before January 1, 2019, because permanently retired units will have no need for allowances from the Supplemental Allowance Pool. NRG Texas supports EPA's proposal to mirror the variability limit from CSAPR to add up to 18% of the total allocation annually to the 10,000 tons in the Supplemental Allowance Pool. Vistra similarly agrees that with the retirement of sources equaling 74,313 tons of allowances, it is reasonable for EPA to proportionately reduce the amount in the Supplemental Allowance Pool.

We received a comment from LCRA supporting EPA's allocations to their Fayette power plant units in the FIP. LCRA commented that the allocations should not be reduced from the October 2017 FIP allocations and that any changes to the SO_2 credit allocation methodology that would reduce their unit allocations should be subject to notice and comment through a new proposal.

We received a comment from Vistra stating all other aspects of the Texas SO_2 Trading Program, including coverage, unit-level allocations, and retirement provisions, should remain the same.

We received a comment from AEP supporting EPA's proposal addressing how allowances from retired units will be allocated following retirement at 40 CFR § 97.911(a)(2), which currently provides for retired units to receive and bank the retired unit allocations for the time period set forth in that provision. AEP believes that continuing to provide allocations to retired units for five years is wise because companies will be encouraged to retire units for efficiency, economic, and/or other reasons, which would result in significant SO_2 emission reductions. AEP believes that revising 40 CFR § 97.911(a)(2) such that the retired units would receive allocations for less than five years would serve to penalize companies that have retired units and planned on relying on these allocations in their decisions related to their compliance strategy for continuing operations. Vistra also agrees with continuing to provide allocations to retired units for five years and believes this should not change. Vistra states that if EPA were to go back on this decision passed in the October 2017 BART FIP, it would create regulatory uncertainty and penalize sources for relying on the currently applicable rules. Vistra also states that if EPA were to alter this provision and deny all allowance allocations to retired units, it would create a perverse incentive for less economic or less efficient units to continue operating at a reduced utilization rate, so they would continue to receive allowances.

We received a comment from AEP supporting a revision to 40 CFR § 97.911(a)(2) to allow retired units to be allocated and to be able to bank their allocations indefinitely, which would allow companies to sell or use the allowances beyond the five-year period. Because the emissions from EGUs were modeled in the CSAPR Better-than-BART demonstration, AEP asserts that retired units should be able to bank these allocations beyond the five-year period because the BART alternative requirements were satisfied by including these emissions. AEP states that allowing companies to be allocated and be able to bank retired unit allowances will encourage owners and operators to consider retiring units and provide them with additional compliance options in generation planning. According to AEP, the retirement of units represents real visibility improvements and companies should not be punished by losing retired unit's allocations after a finite period of time.

We received a comment from NRG Texas that suggests revising 40 CFR § 97.911(a)(2) regarding the allocation to retired units such that for retired units, 20% of the retired unit allowances would be allocated to the Supplemental Allowance Pool in each of the calendar trading years following retirement of each of the subject units. In the current proposal, approximately 38% of the total available allowances would be distributed to owners of units that will be retired at the start of the trading program. In lieu of the current proposal in which EGU owners retain all the retired unit allocations for five years, there would be a gradual ramp down in years one through five. NRG Texas believes it will be critical during the initial years of the program to establish sufficient allowances in the Supplemental Allowance Pool in each of the calendar trading years following the retirement of each of the subject units due to the small number of program participants and uncertain trading liquidity. NRG Texas states that the lack of liquidity could distort the market if people who have excess allowances decide not to sell.

We received a comment from NRG Texas that also suggests that an owner should only be able to access the Supplemental Allowance Pool when its fleet of sources is short on allowances and not on a source-by-source basis without considering the owner's fleet-wide allowance holdings.

Response: We appreciate the commenters' support for the concept of reducing the quantity of allowances that can be allocated from the Supplemental Allowance Pool in a given year. As discussed in response to a previous comment, after considering all comments we received, we are finalizing revisions that reduce the number of allowances that can be issued in a given year from the Supplemental Allowance Pool to 16,688 (plus any allowances added to the pool in that year from retired units) for consistency with the new assurance provisions. In addition, in the November 2019 supplemental proposal, we proposed to revise the Supplemental Allowance Pool allocation methodology to allocate allowances at the level of ownership groups rather than the level of sources, consistent with the last comment summarized above, and we are finalizing that revision in this final action as well.

With regard to commenters expressing disagreement with the concept of reducing the quantity of allowances that can be allocated from the Supplemental Allowance Pool in a given year, we note that even with the downward adjustment in the availability of allowances out of the Supplemental Allowance Pool, EPA is confident that sources subject to the program will not have difficulty with compliance. Total emissions from sources covered under the Texas SO_2 Trading Program are well below the total annual budget of allocated allowances, and also well below the assurance level. In light of ongoing changes in the electric-generating sector in Texas, anticipated generation and emission trends are expected to continue to keep actual emissions at or below those levels and thus we anticipate that sources and their owners will have little to no trouble complying with the amendments to the Texas SO_2 Trading Program we are finalizing in this action.

With regard to comments claiming that allowances allocated to units that retire should be eliminated from the budget instead of being reallocated, that is of course an option in designing a trading program, but it is not a requirement, and it is not a feature of the CSAPR SO_2 program on which the Texas SO_2 Trading Program was modeled. In this instance, the Texas SO_2 Trading Program was designed to qualify as a BART alternative in light of EPA's previous determinations regarding permissible BART alternatives, and for that reason was designed to be as similar as possible to the CSAPR SO_2 program. Both the amounts of the initial allocations to units under the Texas SO_2 Trading Program and the treatment of the allocations to units that have been retired for at least five years are directly based on the analogous provisions in the CSAPR SO_2 trading program. We were not required and did not find it necessary to revise the provisions at 40 CFR § 97.911(a)(2) of the Texas SO_2 Trading Program in order to ensure that the program qualifies as a BART alternative in the context of the 2012 and 2017 CSAPR Better-than-BART determinations. Thus, we are not finalizing substantive revisions to the provisions at 40 CFR § 97.911(a)(2).[107]

Comment: It is arbitrary and capricious for the Texas SO_2 Trading Program to allocate allowances to units that have already retired or intend to retire before the Trading Program goes

[107] We are finalizing only non-substantive revisions to 40 CFR § 97.911(a)(2) that clarify that allowances from the trading budget that are transferred to the Supplemental Allowance Pool are not necessarily "allocated under" § 97.912, but instead are made available for "potential allocation in accordance with" § 97.912.

into effect in 2019. See 40 CFR § 97.911(a)(1). Specifically, the Texas SO_2 Trading Program allocates allowances to Big Brown, Monticello, Sandow, and Welsh Unit 2, all of which have already retired, as well as JT Deely, which has announced that it will retire by the end of 2018. EPA notes that the allowances allocated to these units amount to 74,313 tons per year, 82 FR at 43,603, a significant percentage of the total annual allowances.

EPA cannot finalize a FIP that would allocate emission credits to sources that no longer have a valid Title V permit to operate, because the only lawful option for using such allowances would be to transfer them to existing units with valid Title V permits, and those existing units would then be authorized to increase their emissions. This would exacerbate the critical flaw in the Texas SO_2 Trading Program, that the total allowance allocations exceed actual emissions from covered sources in 2015, 2016, and 2017, and therefore the Texas SO_2 Trading Program will fail to make progress toward eliminating haze pollution, as required by the statute, 42 USC § 7491(b)(2). Accordingly, EPA must eliminate all of these allowances for units that will have retired by January 1, 2019, such that none of these units receives allowances under the Texas SO_2 Trading Program.

Moreover, EPA has provided no rationale for allocating allowances to units that have already retired or will have retired by the date the final rule is issued and/or goes into effect. And EPA has not even considered how making 74,313 tons of allowances per year from retired units available to other sources will impact allowance prices. Given that the allowances from already-retired units is such a large percentage of the total allowances available, allowances will likely be so abundant and cheap that even those units emitting more than their allotted allowances will have little to no incentive to reduce emissions instead of purchasing allowances to continue polluting at the same level.

In addition, continuing to provide allowances to units that have already retired violates the anti-backsliding provision of the Clean Air Act, 42 USC § 7410(l), by in effect transferring additional allowances from retired units to other, existing units, thereby enabling non-retired units to increase their emissions over what they would otherwise be allowed. As a result, the Texas SO_2 Trading Program EPA is proposing to "affirm" would, if affirmed, then authorize even higher emissions on a per-unit basis than authorized by the 2017 FIP promulgating the Trading Program. At the time the Texas SO_2 Trading Program was issued in October 2017, Big Brown, Monticello, and Sandow had not retired, and were allocated allowances. Despite the fact that those units have now retired, EPA is not proposing to change the allowance allocations for those units. In effect, the number of operating sources has declined, but the total emission allowances are the same. The 30 units that are still operating and are covered by the Texas SO_2 Trading Program will have an additional 74,313 tons of allowances available to receive or purchase from the retired units. The owners of already-retired units would either use these allowances for other, active units they own, or sell the allowances—there is no rational economic reason they would simply hold allowances for units that have retired and do not need allowances.

If the remaining 30 active units split the 74,313 tons of allowances from already-retired units evenly, each of the 30 units could increase emissions by 2,477 tons relative to what they could emit under the October 2017 final rule promulgating the Texas SO_2 Trading Program. Put differently, by making more allowances available on a per-active-unit basis than the 2017 FIP

promulgating the Texas SO_2 Trading Program, the proposed revisions to the Texas SO_2 Trading Program authorize each active unit to emit more than the October 2017 final rule did, as shown in the following table:

Table 6. Comparison of total units and allowances between October 2017 FIP and June 2020 final FIP affirmation.

	Final 2017 Texas SO_2 Trading Program	Proposed 2018 Texas SO_2 Trading Program
Active Units Allocated Allowances	38 units	30 units
Total Allowances Available	293,104 tons	293,104 tons
Average Allowances Per Active Unit	7,713 tons	9,770 tons

Response: We disagree that the Texas SO_2 Trading Program provisions that allocate allowances to units that no longer operate is arbitrary and capricious. As explained in our October 2017 final rule establishing the Texas SO_2 Trading Program and elsewhere in this document, the Texas SO_2 Trading Program is modeled closely on the CSAPR SO_2 program in order to ensure that the program qualifies as a BART alternative in the context of the 2012 CSAPR Better-than-BART determination. The units identified by the commenter as no longer operating would all have been allocated allowances under the CSAPR SO_2 program.

The comment states in part that we cannot allocate allowances to sources that have retired and surrendered their title V operating permits because the allowances would be transferred to and used for compliance by units that continue to operate. We disagree that this feature of the Texas SO_2 Trading Program is inappropriate. A fundamental feature of a trading program is the flexibility that allows sources to determine how to shift responsibility for compliance with the overall cap by transferring allowances from one source to another. This is as true for allowances that have been allocated to units that have retired as it is for allowances that have been allocated to units that continue to operate.

Commenter asserts that we have provided no rationale for allocating allowances to the sources that have already retired. To the contrary, we have repeatedly indicated that the Texas SO_2 Trading Program was designed to closely replicate the CSAPR SO_2 program in order to ensure that the program qualifies as a BART alternative in the context of the 2012 and 2017 CSAPR Better-than-BART determinations, and we have made clear that the CSAPR SO_2 program would have allocated allowances to these units. Commenter's suggestion that we should consider the impact of these particular allowance allocations on projected allowance prices makes no claims distinct from commenter's more general claim that we have failed to adequately consider projected allowance prices under the program. We have responded to the comment concerning the asserted need to consider projected allowance prices in response to that more general claim.

We disagree that allocating allowances to units that have already retired violates 42 USC § 7410(*l*), which is sometimes referred to as the anti-backsliding provision of the Clean Air Act. Under this provision, the EPA Administrator "shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress … or any other applicable requirement of [the Act]." The FIP promulgating the Texas SO_2 Trading Program establishes new limitations on emissions from the units covered by the plan; it does not remove any existing limitations. Because the Texas SO_2 Trading Program does not revise any existing plan provisions in the manner commenter suggests, it does not trigger or require further analysis under 42 USC § 7410(*l*).

The commenter's statements regarding the quantity of allowances allocated to units that continue to operate mischaracterize the Texas SO_2 Trading Program. While the maximum quantity of allowances that could have been issued under the Texas SO_2 Trading Program in a single year as originally promulgated was 293,104, the average quantity of allowances that could be issued under the plan was 248,393, the sum of the original Texas SO_2 Trading Program budget and the Supplemental Allowance Pool budget. Following the revisions made in this action, the maximum quantity that can be issued in an individual year will be 255,083 tons of allowances. In addition, with the changes to the program finalized in this action, allowances that originally would have been allocated to retired units and that instead are added to the Supplemental Allowance Pool beginning in the sixth year after the retirement will only be allocated out of the Supplemental Allowance Pool if needed to cover short-falls at the owner-level in that year. See Section III.A.1 of the preamble for our final rulemaking for further explanation. Other allowances in the Supplemental Allowance Pool, including allowances that were added to the pool from retired units in previous years but not allocated to operating sources in the year they were added to the pool, are subject to the limitation on annual allocations out of the Supplemental Allowance Pool of 16,688 tons. Out of this total of 16,668 that may be allocated, 10,000 consists of the annual Supplemental Allowance Pool budget, leaving 6,688 that can be allocated from any allowances added to the pool in prior years but not allocated. Effectively, then, once retired-unit allocations begin going to the Supplemental Allowance Pool, except for any portion of those allocations that are re-allocated to currently operating units in the same year to meet owner-level shortfalls in that year, the amount that will be available for re-allocation to currently operating units in later years will never exceed 6,688 allowances per year.

The commenter correctly notes that if fewer units in the plan continue to operate, then the results of dividing these total annual quantities of allowances by a smaller number of units will show a higher number of allowances per unit. However, the relevant point for the stringency of the program is not the number of allowances available per unit, but the total emissions allowed by the program, which is determined by the program features relating to the use of the allowances issued, such as the assurance provisions added to the Texas SO_2 Trading Program in this final action.

Comment: The Texas SO_2 Trading Program's treatment of units that retire in the future is arbitrary and capricious. The Texas SO_2 Trading Program provides that if, after 2018, a unit does not operate for two consecutive years, the unit will continue to receive allowances until the fifth year after the first year it did not operate, and then such allowances will be placed in the Supplemental Allowance Pool. 40 CFR § 97.911(a)(2). Both the provision that a retired unit will

continue receiving allowances for five years after retirement, and the provision placing allowances from units that have retired into the Supplemental Allowance Pool, are arbitrary and capricious.

As an initial matter, if a source has relinquished its operating permit—or if the permitting agency has terminated the permit—the source cannot emit any pollutants, and therefore the source would have no emissions for which it would need allowances. *See* 42 USC § 7661a(a). Thus, as mentioned above, because a retired source has no emissions for which it needs allowances, a retired source would likely sell or transfer allowances to existing sources. As a result, non-retired sources could increase emissions and have enough allowances to cover such increased emissions. At the same time, because allowances will be so plentiful and therefore so cheap, allocating allowances to units after they retire will not incentive units to retire. Thus, granting allowances to units that retire in the future will have the net impact of increasing SO_2 emissions and therefore increasing visibility impairment. This is arbitrary and capricious, given that the statutory mandate is to make reasonable progress toward eliminating visibility impairment, 42 USC § 7491(a)(1).

Moreover, EPA has failed to set forth any rational basis for continuing to provide allowances to a unit that retires under the trading program for five years after such retirement. In particular, EPA has provided no explanation for how five years of continued allowances could possibly help ensure reasonable progress toward eliminating haze, 42 USC § 7491(b)(2). This is a glaring omission given that this provision would certainly appear to frustrate progress by ensuring that the emission reductions from a retirement could be cancelled out by another, existing source that would receive or purchase the five years of post-retirement allowances.

EPA has similarly failed to consider how the treatment of future retirements would impact allowance prices. The practical impact of 40 CFR § 97.911(a)(2) is that as units retire and the number of operating units decreases, the number of available allowances could remain constant. In other words, as demand drops, supply stays the same. Fundamental economic principles dictate that the price of allowances will therefore decline over time, and thus units that continue to operate will have even less of an economic incentive to install pollution controls or otherwise reduce their emissions, rather than simply holding or purchasing allowances. EPA's failure to consider this fundamental impact of the Texas SO_2 Trading Program's continued allocation of allowances five years after a unit retirement is arbitrary and capricious. Nor has EPA considered the option of eliminating the allowances from a retired unit in the years after the unit retires.

Response: EPA disagrees that the Texas SO_2 Trading Program's treatment of allowances allocated to units that may retire in the future is arbitrary and capricious. All of the claims made by the commenter in this comment concerning the allowances allocated to units that may retire in the future were also contained in the commenter's comment concerning the allowances allocated to units that have already retired. We addressed those claims in response to the other comment, and we disagree with the comments concerning allowances allocated to units that may retire in the future for the same reasons.

Comment: The TCEQ suggests retaining current program elements finalized in the October 2017 FIP, considering the imminent start of the program on January 1, 2019. Significant program changes may mean the EPA must propose another rule, potentially causing significant interruption in the planning operations of participating sources. The EPA noted in the preamble discussion of

this proposed rule that should the EPA act pursuant to any comments submitted on the policy questions posed by the EPA, the EPA may initiate a new proposed rule (83 FR 43587). The EPA finalized in its October 2017 FIP (82 FR 48324) for certain Texas EGUs that not only did the SO_2 intrastate trading program satisfy as a BART alternative, but that it also satisfied the requirements for BART alternatives of the Regional Haze Rule. Participating sources have made planning efforts to comply by January 1, 2019 based on the amount of their respective allocations in addition to the maximum distribution of allowances from the Supplemental Allowance Pool originally based on all participating units of the program. Even if the EPA were to implement changes through a separate rulemaking, making changes in the early stages of the program creates uncertainty and may result in disruption of operations among the participants. Additionally, it would be inappropriate for the EPA to commit to any changes from the October 2017 final rule, especially given the EPA's willingness to propose to affirm what it previously finalized. Finally, should the EPA decide to make changes then such changes should have a delayed effectiveness to avoid creating confusion with compliance during a control period. The TCEQ suggests that the effectiveness of any significant changes to the program (e.g., changes to allocations) be delayed until at least one full control period after the EPA adopts the changes to the regulation, i.e., if changes are finalized in 2019 then the changes would not take effect until the 2021 control period. Depending on the extent of the changes, more time may be necessary.

Response: We appreciate TCEQ's concerns. As we noted in the preamble of our August 27, 2018 proposal to affirm the Texas SO_2 Trading Program FIP, we anticipated that in response to any comments submitted on the policy questions posed in the affirmation proposal, we could decide to initiate a new proposed rule. On November 14, 2019, we published a supplemental notice of proposed rulemaking to seek public input on changes to the intrastate trading program as a result of comments received during the comment period for the proposal to affirm the October 2017 rule.[108] The supplemental proposal sought public input on a number of proposed amendments to the Texas SO2 Trading Program, including (1) the addition of assurance provisions; (2) revisions to the Supplemental Allowance Pool allocation provisions; (3) termination of the opt-in provisions; and (4) revisions of the allowance recordation provisions. After carefully considering all comments we received, including those on the supplemental proposal, we are finalizing our affirmation proposal with all of the changes included in the supplemental proposal, generally as proposed, with certain additional modifications.

The first year of the control period for which these changes will take effect is 2021. We are confident that sources and their owners will have little to no trouble complying with the amendments to the Texas SO_2 Trading Program finalized in this action given several months' time to prepare for the changes before the start of the 2021 period. Additionally, in light of ongoing changes in the electric-generating sector in Texas, there is a reasonable expectation that actual emissions under the Texas program would remain well below the assurance level and thus we anticipate that sources and their owners will have little to no trouble complying with the amendments to the Texas SO_2 Trading Program we are finalizing in this action.

[108] 84 FR 61850.

ii. Coleto Creek

Comment: The Supplemental Allowance Pool's treatment of Coleto Creek is unlawful and arbitrary and capricious. The Supplemental Allowance Pool, 40 CFR § 97.912, is unlawful, arbitrary, and capricious because, far from reducing SO_2 emissions to improve visibility at the Class I Areas impacted by these Texas generating units, this provision would allow SO_2 emissions to increase over time. Section 97.912 regulates how compliance assistance would be provided to any unit that finds itself in the position of not holding enough allowances to cover its year-end SO_2 emissions. This provision's treatment of Coleto Creek is unreasonably permissive because §97.912(a)(3)(i) allows Coleto Creek to increase its emissions to an unspecified level without incurring any penalty. 82 FR at 48370. Section 97.912(a)(3)(i) states:

> For Coleto Creek (ORIS 6178), if the source is identified under paragraph (a)(1) of this section, the Administrator will allocate and record in the source's compliance account an amount of allowances from the Supplemental Allowance Pool equal to the lesser of the amount calculated for the source under paragraph (a)(2) of this section or the total number of allowances in the Supplemental Allowance Pool available for allocation under paragraph (b) of this section.

Paragraph (a)(2) simply determines how much Coleto Creek's SO_2 emissions exceed its allowances. Thus, under § 97.912(a)(3)(i), if Coleto Creek requires more allowances to be in compliance, those allowances will be provided up to the amount held in the supplemental allowance pool. Because that pool's starting balance is 10,000 tons and given that Coleto Creek's 2016 SO_2 emissions totaled 8,231 tons, 71 § 97.912(a)(3)(i) would allow this unit to more than double its 2016 SO_2 emissions. And nothing in the Trading Rule would prevent Coleto Creek from increasing its SO_2 emissions to even higher levels, if and when the supplemental allowance pool has accumulated allowances in excess of 10,000 tons.

While this provision governing Coleto Creek was arbitrary and capricious when it was announced in 2017, it is even less defensible now that Dynegy, the owner of Coleto Creek, has merged with Vistra. EPA's original rationale for guaranteeing the maximum allocation for Coleto Creek from the Supplemental Allowance Pool was that Coleto Creek was the only covered source owned by Dynegy, whereas other sources' owners have multiple covered plants; according to EPA, "[i]t was conceivable that insufficient incentives would exist to compel Dynegy's competitors in the electric market to make their additional allowances available for purchase by Dynegy." 83 FR at 43602. Now that Vistra and Dynegy have merged, this is no longer true, because the combined Dynegy-Vistra company owns several units other than Coleto Creek covered by the Trading Rule. Given that the factual basis for this provision concerning Coleto Creek is no longer true, EPA must eliminate 40 CFR § 97.912(a)(3)(i).

Even apart from its treatment of Coleto Creek, § 97.912 is arbitrary and capricious because it facilitates increases in SO_2 emissions. Once Coleto Creek has availed itself of any needed allowances, section 97.912(a)(3)(ii) provides that any other power plants that also need compliance assistance can divide up the remaining allowances. If the needed allowances exceed what remains in the supplemental allowance pool, then the remaining allowances are distributed

proportionally. These provisions underscore that, far from reducing SO_2 emissions, the Trading Rule is designed to allow current SO_2 emissions to increase.

Response: When we finalized our Texas SO_2 Trading Program FIP in October 2017, all sources required to participate in the trading program had the flexibility to transfer allowances among multiple participating units under the same owner/operator when planning operations, with the exception of Coleto Creek, which consists of only one coal-fired unit, and at the time of our October 2017 FIP, this was the only coal-fired unit in Texas owned and operated by Dynegy. In light of this, in our October 2017 FIP, we provided Coleto Creek with additional flexibility by allocating its maximum supplemental allocation from the Supplemental Allowance Pool as long as there were sufficient allowances in the Supplemental Allowance Pool available for allocation, and its actual allocation would not be reduced in proportion with any reductions made to the supplemental allocations to other sources. In our August 2018 proposal, we noted that Dynegy had merged with Vistra which owns other units that are subject to the trading program. In the August 2018 proposal, we solicited comment on eliminating this additional flexibility for Coleto Creek in light of the recent change in ownership, and we received no adverse comments on such a change. Therefore, on November 14, 2019, we published a supplemental notice of proposed rulemaking that proposed to make this change to the regulations.[109] After considering all comments we received on our supplemental proposal, we are finalizing the removal of the special provisions for Coleto Creek, thus making moot the comments concerning Coleto Creek's treatment under the Supplemental Allowance Pool.

We disagree with the commenter's additional statements that, aside from the treatment of Coleto Creek just discussed, the Supplemental Allowance Pool is arbitrary and capricious because it would allow emissions to increase over time. We have responded elsewhere to the commenter's similar assertion that the Supplemental Allowance Pool would "inflate the cap" in sections IV.A and IV.K of the Federal Register notice for this final action.

Comment: The EPA should eliminate the additional flexibility afforded to Coleto Creek's owner in the Supplemental Allowance Pool of the SO_2 trading program FIP because Coleto Creek is no longer an isolated unit in the program. Given the recent merger between Dynegy and Vistra Energy, which owns or operates several other Texas EGUs that are subject to the Texas intrastate trading program for SO_2, Coleto Creek will now be part of a larger set of participating units under the same owner/operator. Because Coleto Creek is no longer at a disadvantage as it was before, the flexibility afforded to Coleto Creek under the Supplemental Allowance Pool is no longer necessary. Vistra Energy will be able to transfer allowances among the multiple participating units should any one source require additional allowances during any control period greater than its allocation, including Coleto Creek. Eliminating the flexibility directly afforded to Coleto Creek under 40 CFR §97.912(a)(3) as a result of the merger will provide an equal opportunity among the participating sources for access to the Supplemental Allowance Pool. The TCEQ acknowledges this change to the Supplemental Allowance Pool would require rulemaking. The timing of rulemaking to implement changes to the program is a potential concern given the imminent start of the program. However, in this case, the TCEQ encourages the EPA to discuss with program stakeholders appropriate timing for making a change to the Supplemental Allowance Pool.

---

[109] 84 FR 61850.

We also received comments from AEP, NRG Texas, SPS, and Vistra that side with eliminating the additional flexibility to Coleto Creek due to the recent change in ownership. The additional flexibility would give Coleto Creek priority for allocations from the Supplemental Allowance Pool. AEP states that retaining this flexibility would place Coleto Creek and its owner in a favorable position in comparison to other utilities operating in the ERCOT, which would unfairly impact other EGUs. NRG Texas similarly states this additional flexibility would significantly reduce the allowances available to other sources. SPS explains that eliminating the additional flexibility will ensure a more equitable distribution of allowances for EGUs needing compliance assistance. Vistra submitted comments on both the August 2018 proposal and the November 2019 supplemental proposal in support of eliminating the priority given in the October 2017 final rule to Coleto Creek for allocations from the Supplemental Allowance pool given that this priority is no longer necessary in light of the facility's change in ownership.

Response: As explained elsewhere in this document, in our August 2018 proposal, we solicited comment on eliminating the additional flexibility for Coleto Creek in light of the recent change in ownership, and we received no adverse comments on such a change. Thereafter, on November 14, 2019, we published a supplemental notice of proposed rulemaking that proposed to make this change to the regulations.[110] After considering all comments we received, we are finalizing the removal of the special provisions for Coleto Creek, thus addressing the comments concerning Coleto Creek's treatment under the Supplemental Allowance Pool.

iii. Visibility Transport

Comment: The Trading Rule does not satisfy Texas' Clean Air Act Section 110(A)(2)(D)(I)(ii) Visibility Transport plan requirements. EPA is proposing "to affirm the finding that the BART alternatives in the October 2017 rulemaking result in emission reductions adequate to satisfy the requirements of Clean Air Act section 110(a)(2)(D)(i)(II) with respect to visibility for six NAAQS issued between 1997 – 2010." 83 FR 43593. EPA's rationale for affirming this finding is deficient; the Trading Rule does not satisfy Texas's visibility transport plan requirements.

In the January 2017 proposed rule, EPA found that its source-specific BART proposal, together with Texas' participation in CSAPR for NO_X, would satisfy the visibility transport requirements. *See* 82 FR at 917. EPA's rationale was that this combination would produce greater emission reductions and visibility benefits than assumed under CAIR or CSAPR alone, and that the source-specific BART requirements would cut the most significant emissions from large sources. *Id.* ("We are proposing this action based on the reasoning that our BART FIP will achieve more emission reductions than projected under CAIR or CSAPR and the reductions are occurring at sources that have particularly large impacts on Class I areas outside of Texas.").

In the Trading Rule, however, EPA adopted an entirely different position that it now seeks to affirm. First, the agency relied on its newly invented intrastate trading program, not

[110] 84 FR 61850.

source-specific BART, to meet the visibility transport obligation. Second, EPA based that reliance on an entirely new rationale, namely, that the SO_2 reductions it predicted from the trading program would be consistent with emissions reductions modeled by CENRAP under a regional haze planning organization process. *Id.* at 48332.

EPA's reliance on the Trading Rule to satisfy section 110(a)(2)(D)(i)(II) is arbitrary and capricious. EPA claims that the Trading Rule reduces emissions as much as CAIR would have, and that the central states agreed that their respective interstate visibility transport obligations would be met through implementation of CAIR. *See* 82 FR at 48332. But EPA cannot use CAIR—which has been invalidated by the D.C. Circuit and replaced by EPA—as the benchmark for whether the Trading Rule meets the interstate visibility transport requirements.

And there is no rational basis for EPA's new rationale of relying on the emission levels assumed in CENRAP modeling as a basis for finding that Texas' emissions will not interfere with other states' visibility plans. That CENRAP used emission assumptions in its modeling does not show that those assumptions were in fact sufficient to assure non-interference by Texas' emissions with measures required to protect visibility in other states. Moreover, the states whose visibility is impacted by Texas include states that were not members of CENRAP, such as New Mexico and Colorado, and therefore the CENRAP process could not have determined what emissions limits were necessary to satisfy Texas' obligations regarding New Mexico and Colorado.

Response: First, we address comments regarding the Texas SO_2 Trading Program as being unlawful, arbitrary, or capricious, elsewhere in this document. Second, the Texas SO_2 Trading Program, as promulgated in October 2017 and with the amendments promulgated in this final rule, results in emission reductions that are adequate to satisfy Texas' visibility transport obligations under CAA section 110(a)(2)(D)(i)(II) for the following six NAAQS: (1) 1997 8-hour ozone; (2) 1997 $PM_{2.5}$ (annual and 24 hour); (3) 2006 $PM_{2.5}$ (24-hour); (4) 2008 8-hour ozone; (5) 2010 1-hour NO_2; and (6) 2010 1-hour SO_2. The 2009 Texas Regional Haze SIP relied on participation in CAIR to meet the SO_2 BART requirements for Texas EGUs, and this level of emissions reductions from Texas is what other states relied upon and assumed during interstate consultation and in the development of their long-term strategies and reasonable progress goals for their own Class I areas in their regional haze SIPs. As discussed in Section III.B of the preamble of our final rule, Texas EGU sources were projected to emit approximately 350,000 tons of SO_2 annually under CAIR participation. By comparison, Texas EGUs are anticipated to emit no more than approximately 290,083 tons of SO_2 annually under the Texas SO_2 Trading Program (i.e., 255,083-ton assurance level + estimated 35,000 tons per year of emissions from units not covered by the Texas SO_2 Trading Program), which is well below the 350,000-ton emissions projection for Texas sources under CAIR and well below the maximum total annual SO_2 emissions assumed for Texas under CSAPR (i.e., 317,000 tons) in the CSAPR Better-than-BART analysis. Thus, the Texas SO_2 Trading Program as amended in this final action, ensures SO_2 emission reductions from Texas that are consistent with, and indeed greater than, the level of emission reductions relied upon by other states during interstate consultation, and thus this level of emissions reductions is adequate to

satisfy the requirements of CAA section 110(a)(2)(D)(i)(II) with respect to visibility for the six identified NAAQS.[111]

The commenter makes the claim that CENRAP's modeling of emission assumptions does not necessarily demonstrate that those assumptions were in fact sufficient to assure non-interference by Texas' emissions with measures required to protect visibility in other states. We note that our 2013 infrastructure-SIP guidance addressing the interstate visibility transport requirements of the Act (also sometimes referred to as "prong 4") lays out two ways in which a state's infrastructure SIP submittal may satisfy these requirements.[112] One way is through a state's confirmation in its infrastructure SIP submittal that it has an EPA-approved regional haze SIP in place. In the absence of a fully approved regional haze SIP, the second method to meet these requirements is a demonstration that emissions within a state's jurisdiction do not interfere with other states' plans to protect visibility. Such a demonstration should point to measures that limit visibility-impairing pollutants and ensure that the resulting reductions conform with any mutually agreed emission reductions under the relevant regional haze regional planning organization (RPO) process.[113] Given that the emissions under the Texas SO_2 Trading Program – including the assurance provisions - are less than the level of Texas emissions reductions agreed upon by Texas and other states during consultation and assumed and relied upon in those other states' regional haze SIPs, we continue to find that the FIP is adequate to ensure that emissions from Texas do not interfere with measures to protect visibility in nearby states.

The commenter also makes the claim that there is no rational basis for EPA's reliance on the emission levels assumed in CENRAP modeling as a basis for finding that Texas' emissions will not interfere with other states' visibility plans given that there are states whose visibility is impacted by Texas that are not members of CENRAP. Our basis for determining that the FIP is adequate to ensure that emissions from Texas do not interfere with measures to protect visibility in nearby states is that the emissions reductions secured under the Texas SO_2 Trading Program are consistent with the level of emissions reductions relied upon by other states during consultation, which is not limited to consultation amongst CENRAP states.[114] The Regional Haze Rule requires that "Where a state has emissions that are reasonably anticipated to contribute to visibility impairment in any mandatory Class I Federal area located in another State or States, the State must consult with the other State(s) in order to develop coordinated emission management strategies."[115] Clearly, this requirement applies regardless of whether the impacted states are members of the same regional planning organization (RPO) or not. Thus, Texas had an obligation to consult with states, both in and outside of CENRAP, whose Class I areas are potentially impacted by Texas

---

[111] 83 FR 43605.
[112] *See* "Guidance on Infrastructure State Implementation Plan (SIP) Elements under CAA sections 110(a)(1) and 110(a)(2)" (September 13, 2013).
[113] *See id.* "Guidance on Infrastructure State Implementation Plan (SIP) Elements under CAA sections 110(a)(1) and 110(a)(2)," at 34 (September 13, 2013). *See also* 76 FR 22036 (April 20, 2011) (containing EPA's approval of the visibility requirement of 110(a)(2)(D)(i)(II) based on a demonstration by Colorado that did not rely on the Colorado Regional Haze SIP).
[114] See CFR 51.308(d)(3)(i)-(iii) addressing the requirements for consultation with other states.
[115] 40 CFR 51.308(d)(3)(i).

emissions. As documented in the 2009 Texas Regional Haze SIP,[116] Texas participated in inter-regional planning organization calls during the SIP development process for the first planning period. Texas also sent consultation letters to Oklahoma, Louisiana, Missouri, Arkansas, Colorado and New Mexico. Included with each letter was a discussion of the CENRAP Particulate Matter Source Apportionment Technology (PSAT) modeling determining the contribution from each Texas source area to visibility impairment at Class I areas in the given state. In the 2009 SIP, Texas asserted that it participated fully in the analysis of this data, including estimation of the base period visibility impairment, natural visibility condition estimates, and 2018 projections based on current (at that time) and anticipated future state and federal controls. For states outside of CENRAP, Texas documented in its 2009 SIP that Colorado's Department of Public Health and Environment confirmed in a letter dated June 24, 2008, that no further emissions reductions were requested of Texas at that time. Texas also documented that as of December 2008, shortly before its submission of the final SIP to EPA on March 19, 2009, New Mexico had not responded to Texas' letter to confirm whether or not New Mexico was expecting any additional emission reductions from Texas sources. Furthermore, New Mexico did not include in its Regional Haze SIP any additional emission reductions expected from Texas sources. The Texas emissions reductions that will result from the Texas SO_2 Trading Program and Texas' participation in CSAPR for ozone season NO_X are consistent with the level of Texas emissions reductions relied upon by other states both in and outside CENRAP during consultation with Texas.

It is incorrect to claim that because CAIR was invalidated, EPA and the states can no longer use the anticipated emissions and reasonable progress goals established through the consultation process for the first planning period. Those goals may have been established in part based on expectations of emissions performance under CAIR, but the anticipated emissions reductions and the goals for regional haze purposes remain in effect (though we note that reasonable progress goals are not binding). Thus, this level of emissions provides an appropriate benchmark for assessing whether states are adequately addressing interstate visibility transport (when such a demonstration is necessary). We note that this is different than situations in which states have attempted to rely on CAIR as a BART alternative despite the fact that CAIR is no longer in operation. Here, the fact that CAIR no longer exists and has been replaced by CSAPR does not impact the legitimacy of the level of emission reductions agreed upon through the consultation process among states, particularly given that CSAPR is generally more stringent than CAIR. And here, the Texas program is designed to be more stringent than CSAPR would have been for SO_2 emissions in Texas. See Section III.B of the preamble of our final rule, where we provide detailed analysis of anticipated emissions under CAIR and the Texas program. Therefore, we find that Texas' visibility transport obligations under CAA section 110(a)(2)(D)(i)(II) for the six NAAQS listed above are satisfied.

Comment: The trading scheme is not designed to meet requirements other than BART, and even if it were, EPA must analyze BART on a source-by-source basis. EPA's claim that the Trading Rule was designed to meet requirements other than BART has no merit. First, EPA cannot credibly claim that the trading program was "designed to" meet the Clean Air Act's visibility

[116] See 2009 Texas Regional Haze SIP, section 4.3 titled "Consultations On Class I Areas In Other States." The submittal can be found in Regulations.gov docket ID EPA-R06-OAR-2016-0611, document EPA-R06-OAR-2016-0611-0002.

transport requirements, because EPA has not made any determination of the trading program's visibility impacts on other states. To support the notion that the Texas SO_2 Trading Program was designed to meet interstate visibility transport requirements, see 83 FR at 43604, EPA cites a 2013 guidance document stating that states can meet such requirements by pointing "to measures that limit visibility-impairing pollutants and ensure that the resulting reductions conform with any mutually agreed emission reductions under the relevant regional haze regional planning organization (RPO) process." Id.

Here, the regional planning process for Texas and surrounding states was conducted more than a decade ago and assumed that states would implement CAIR. EPA argues that because the Texas SO_2 Trading Program would reduce more emissions than CAIR, the Rule achieves the emission reductions that other states and Texas agreed Texas would achieve, and therefore the Rule is designed to satisfy the interstate visibility transport requirements. 82 FR at 48332. This argument has no merit. EPA cannot use CAIR as the benchmark for whether the interstate visibility transport requirements are met, given that CAIR was invalidated years ago by the D.C. Circuit, North Carolina, 531 F.3d at 903, and has been replaced by CSAPR. 76 FR 48208. Moreover, EPA disapproved Texas' regional haze plan precisely because it relied on CAIR. 77 FR 33642. It is arbitrary and capricious for EPA to now turn around and claim that interstate visibility transport requirements are satisfied because the emissions reductions in CAIR will be achieved. Further, as discussed below, EPA provides no support for its claim that the emission levels assumed in the CENRAP modeling are sufficient to assure that Texas' emissions do not interfere with other states' visibility plans.

EPA cannot lawfully claim that the Texas SO_2 Trading Program was designed to meet the visibility transport requirements of the Clean Air Act for several additional reasons. First, the Clean Air Act's visibility good neighbor provision requires—and authorizes—EPA to prohibit only those upwind emissions that "interfere with measures required to be included in the applicable implementation plan for any other State." 42 USC § 7410(a)(2)(D)(II); cf. E.P.A. v. EME Homer City Generation, L.P., 134 S.Ct. 1584, 1604 (2014) (the Clean Air Act authorizes EPA to "prohibit[ ] only upwind emissions that contribute significantly to downwind nonattainment.") (emphasis in original); see also Homer City II, 795 F.3d at 127. Indeed, applying the Supreme Court's precedent interpreting the analogous good neighbor provision under Section 7410(a)(2)(D)(I), EPA does not have authority—and is not required—to regulate upwind emissions unless it first makes the predicate finding that those upwind emissions "interfere" with downwind visibility. And even if EPA makes that finding, the agency may only regulate upwind emissions up to the "amounts" of pollution that actually "interfere" with downwind visibility. EPA v. EME Homer City Generation, L.P., 134 S.Ct. 1584, 1603 (U.S. 2014); see also Homer City II, 795 F.3d at 127 ("EPA may not require 'an upwind State to reduce emissions by more than the amount necessary to achieve attainment in every downwind State to which it is linked . .. . If EPA does so, 'the Agency will have overstepped its authority, under the Good Neighbor Provision, to eliminate those amounts that contribute to nonattainment.'"). Here in "affirming" the Texas SO_2 Trading Program, EPA has failed to make any predicate finding that emissions from Texas are interfering with downwind states' attainment of the NAAQS. As a result, the agency has not demonstrated that there is any good neighbor "requirement" that the BART Trading Rule is designed to meet. 40 CFR § 51.308(e)(2)(i)(A). Even if EPA had made such a finding, the agency may only prohibit those emissions up to the amounts that interfere with downwind visibility, and EPA has made no such

technical showing. Consequently, EPA cannot properly claim that the Trading Rule was designed to meet the agency's good neighbor "requirement" to protect downwind visibility from "interfere[nce]."

Response: As explained in our August 27, 2018 proposal, in addition to being a sufficient alternative to BART, the trading program is designed to secure reductions consistent with visibility transport requirements.[117] As allowed by the requirements for a BART alternative in § 51.308(e)(2)(i)(C), we are exercising the exception allowed when the alternative measure "has been designed to meet a requirement other than BART (such as the core requirement to have a long-term strategy to achieve the reasonable progress goals established by States)." See 40 CFR 51.308(e)(2)(i)(C). In such circumstances, BART and associated emission reductions may be analyzed for similar sources "based on both source-specific and category-wide information, as appropriate." When promulgating the 2012 CSAPR Better-than-BART rule, the EPA relied on an analysis of BART in CSAPR states and a demonstration showing that CSAPR would result in greater reasonable progress than BART under the test in 40 CFR 51.308(e)(3). In that analysis, EPA utilized simplified assumptions regarding "presumptive" BART limits at BART-eligible sources. This analysis was conducted on a category-wide basis (all fossil fuel-fired EGUs). See 77 FR 33642, 33649-50 (June 7, 2012). This analysis satisfied 51.308(e)(2)(i)(C) because CSAPR was designed to meet the requirements of CAA section 110(a)(2)(D)(i)(I) (sometimes referred to as "good neighbor" obligations) for certain NAAQS pollutants. EPA finds that reliance on the category-wide BART analysis from the 2012 CSAPR Better-than-BART demonstration is appropriate here, because, although the Texas program is not designed to meet good neighbor obligations under section 110(a)(2)(D)(i)(I), it is designed to meet separate CAA requirements for interstate visibility transport under section 110(a)(2)(D)(i)(II), as explained in Section III.B of the preamble of our final rule. This satisfies the condition in 51.308(e)(2)(i)(C) for using category-wide information such as presumptive BART limits in analyzing the Texas SO_2 Trading Program. Thus, the BART determinations derived from that CSAPR Better-than-BART demonstration are an appropriate BART benchmark for comparison against the Texas SO_2 Trading Program given that the Texas SO_2 Trading Program is modeled on the CSAPR trading programs. In this action, we are relying, in part, on that same 2012 CSAPR Better-than-BART demonstration to show that the clear weight of evidence demonstrates that the Texas SO_2 Trading Program, which is modeled on the CSAPR trading programs, will provide for greater reasonable progress than BART in Texas. Indeed, the anticipated maximum potential SO_2 emissions in Texas under the Texas SO_2 Trading Program BART alternative are less than the SO_2 emission levels from Texas EGUs that were forecast in the demonstration for Texas EGU emissions assuming their participation in the CSAPR SO_2 trading program. Under CSAPR, the total allocations for all existing EGUs in Texas were 279,740 SO_2 tons, the total state budget including the amounts of allowances set aside for potential allocation to new units was 294,471 tons, and the assurance level was 347,476 tons. The level of emissions assumed for Texas EGUs in the BART alternative sensitivity analysis utilized for the 2012 CSAPR Better-than-BART determination is 317,100 SO_2 tons.[118] By comparison, the Texas

[117] 83 FR 43586, at 43597.

[118] For the projected annual SO_2 emissions from Texas EGUs, *see* Technical Support Document for Demonstration of the Transport Rule as a BART Alternative, Docket ID No. EPA–HQ–OAR–2011– 0729–0014 (December 2011) (2011 CSAPR/BART Technical Support Document at Table 2-4,), available in the docket for this action. Certain CSAPR budgets were increased after promulgation of the CSAPR final rule (and the increases were addressed in the 2012

SO_2 Trading Program has a budget of 238,395 SO_2 tons, and we are finalizing an assurance level of 255,083 tons in this action. In light of the three-for-one penalty surrender ratio imposed on emissions exceeding the 255,083-ton assurance level, the assurance level represents the highest annual SO_2 emissions anticipated from units subject to the Texas program. In reality, in light of ongoing changes in the electric-generating sector in Texas, there is a reasonable expectation that actual emissions under the Texas program would remain well below the assurance level. We are also finalizing a more conservative (i.e., higher) estimate of 35,000 annual SO_2 tons as the projected emissions from Texas units that would have been in the CSAPR program but are not in the Texas SO_2 Trading Program. This more conservative estimate is based on these units' maximum annual emission level of 34,129 tons over the past five years (2014–2018) and taking into consideration that several of these units have recently shut down or have been announced for shutdown in the near future.[119] Adding that amount to the Texas SO_2 Trading Program's assurance level of 255,083 tons yields 290,083 tons. Assuming this figure represents a firm upper bound on annual SO_2 emissions from the relevant EGUs in Texas under the Texas SO_2 Trading Program, this is less than the 317,100-ton figure EPA had demonstrated was acceptable in the original 2012 CSAPR Better-than-BART analysis.

In arguing that the Texas program cannot be designed to meet interstate visibility transport requirements under section 110(a)(2)(D)(i)(II), the commenter improperly attempts to import policy framework, regulatory design, and administrative and judicial precedents from the separate "good neighbor" requirements found in section 110(a)(2)(D)(i)(I). The "good neighbor provision" at 110(a)(2)(D)(i)(I) is related to addressing significant contribution to nonattainment and interference with maintenance of the NAAQS in other states, which we commonly refer to as prongs 1 and 2. Those precedents are not necessarily applicable given that the agency has long had a different framework for analysis under the interstate visibility transport requirements of the Act (also sometimes referred to as "prong 4"), with an entirely different set of policy guidance and administrative precedents. EPA's general framework for implementing prong 4 is laid out in our 2013 Infrastructure SIP Guidance,[120] and as discussed there, is connected with the requirements of the regional haze program with which it is intricately related. As explained in Section IV.H of the preamble of our final rule, our 2013 Infrastructure SIP guidance addressing the prong 4 requirements of the Act lays out two pathways by which a state can meet its visibility transport obligations, one of which is through a demonstration that emissions within a state's jurisdiction do not interfere with other states' plans to protect visibility. This has been EPA's long-standing interpretation of how a state's visibility transport obligations can be satisfied, and we have since approved many SIPs and promulgated FIPs that address CAA section 110(a)(2)(D)(i)(II) with respect to visibility transport through this pathway. Commenter's claims regarding what is required under prong 4 by reference to the good neighbor provision finds no support in the statute, EPA interpretations or guidance, or other administrative or judicial precedent. *Comment:* The October 2017 Regional Haze FIP satisfies Texas' obligations for interstate visibility transport for certain

---

CSAPR/BART sensitivity analysis memo. See memo entitled "Sensitivity Analysis Accounting for Increases in Texas and Georgia Transport Rule State Emissions Budgets," Docket ID No. EPA–HQ–OAR–2011–0729–0323 (May 29, 2012), available in the docket for this action. The increase in the Texas SO_2 budget was 50,517 tons which, when added to the Texas SO_2 emissions projected in the CSAPR + BART-elsewhere scenario of 266,600 tons, yields total potential SO_2 emissions from Texas EGUs of approximately 317,100 tons.

[119] 84 FR 61853.

[120] *See* "Guidance on Infrastructure State Implementation Plan (SIP) Elements under CAA sections 110(a)(1) and 110(a)(2)" (September 13, 2013).

NAAQS. Specifically, the TCEQ supports the EPA determination that Texas' participation in the CSAPR Ozone Season Nitrogen Oxides (NO_X) Program satisfies NO_X BART requirements and, with the SO_2 intrastate trading program, fully addresses Texas' interstate visibility transport obligations, and ensures emissions from Texas do not interfere with visibility in nearby states, for the following six NAAQS per FCAA, Section 110(a)(2)(D)(i)(II) 1997 Eight-hour Ozone; 1997 Fine Particulate Matter ($PM_{2.5}$) (annual and 24-hour); 2006 $PM_{2.5}$ (24-hour); 2008 Eight-hour Ozone; 2010 One-hour Nitrogen Dioxide (NO) and 2010 One-hour SO_2.

We also received comments from AEP, NRG Texas, SPS, and Vistra that agree with the EPA's determination that BART alternatives in the October 2017 rulemaking to address SO_2 and NO_X BART at Texas' EGUs result in emission reductions adequate to satisfy the requirements of CAA section 110(a)(2)(D)(i)(II) with respect to visibility for a number of NAAQS issued between 1997 and 2010. SPS believes EPA's analysis sufficiently demonstrates that the Texas BART FIP is adequate to ensure that emissions from sources in Texas do not interfere with measures to protect visibility in nearby states.

Response: We appreciate TCEQ and local industry support for our proposed determination that Texas' participation in CSAPR for ozone season NO_X and the SO_2 intrastate trading program fully addresses Texas' interstate visibility transport obligations for the following 6 NAAQS: 1997 Eight-hour Ozone; 1997 Fine Particulate Matter ($PM_{2.5}$) (annual and 24-hour); 2006 $PM_{2.5}$ (24-hour); 2008 Eight-hour Ozone; 2010 One-hour Nitrogen Dioxide (NO) and 2010 One-hour SO_2.

iv. PM BART

Comment: EPA's failure to conduct a source-specific PM BART analysis is arbitrary and capricious. In its January 2017 BART FIP proposal, EPA proposed to disapprove Texas's technical evaluation and determination in the 2009 Regional Haze SIP that particulate matter (PM) BART emission limits are not required for any of Texas's EGUs. Instead, EPA proposed source-specific PM BART emission limits for Texas EGUs coal units equal to the Mercury and Air Toxics (MATS) limit of 0.030 lb/MMBtu and work practice standards. 82 FR at 947.

As noted in our May 5, 2017 comments and in the accompanying expert report of Vicki Stamper, which we attach as Ex. 17 ("May 2017 Stamper Report") and incorporate by reference, EPA's source-specific PM BART determinations were arbitrary and capricious for at least four reasons. First, EPA unlawfully assumed that Maximum Achievable Control Technology ("MACT") standards under the MATS Rule—which were calculated based on the average of the emissions rates of the best-performing 12% of plants across the country—could supplant the agency's statutory obligation to determine PM BART on a source-by-source basis, evaluating the five statutory BART factors. 82 FR at 936; *compare* 42 USC § 7491(g)(2) *with* 42 USC § 7412(d)(3) (providing different statutory factors for MACT and BART determinations). Had Congress wanted states and EPA to make BART determinations using the methodology for calculating MACT standards, Congress would have said so. Second, and relatedly, EPA unlawfully relied on a "streamlined" approach to PM BART, 82 FR at 935, instead of determining BART, "*on a case-by-case basis*" as required by the agency's regional haze

regulations. 40 CFR § 51.301 (emphasis added). Third, EPA arbitrarily failed to gather any data on the control efficiency of existing PM controls, rendering it impossible for EPA to evaluate the best emission limit for each unit. *See, e.g.*, 82 FR at 936 ("We do not have any information on the control level efficiency of any of the ESPs for the units in question."). Fourth, EPA arbitrarily failed to consider improvements to existing controls in use at each unit, as EPA did in its analysis of SO_2 BART for the same units.

Although the PM BART emission limits EPA proposed in the January 2017 BART FIP proposal were flawed in several ways,[135] EPA correctly recognized that Texas must conduct source-specific PM BART analyses because the state could no longer rely on SO_2 and NO_x emission reductions from the now-defunct Clean Air Interstate Rule. Additionally, the 2009 Texas SIP neglected to identify several BART-eligible sources, which also required the partial disapproval of the state's SIP, and a corresponding federal plan to correct the deficiencies in Texas's PM BART analysis. 82 FR at 918 n.38.

EPA now proposes to affirm its approval of Texas' finding that no PM BART controls are necessary for EGUs based on a "pollutant-specific screening analysis for PM" that purportedly demonstrates that Texas EGUs are "not subject to BART for PM."83 FR at 43593. EPA asserts that Texas' pollutant-specific screening analysis is consistent with a 2006 guidance document in which EPA suggested that a "pollutant-specific screening can be appropriate where a state is relying on a BART alternative to address both NOx and SO_2 BART." 83 FR at 43590.

Comment: EPA's Approval of Texas' screening approach cannot be reconciled with the plain language of the Clean Air Act. EPA's proposal to affirm its prior approval of Texas' screening approach is contrary to the plain language of the Clean Air Act because it effectively exempts sources from installing PM BART controls without going through the statutory exemption process Congress prescribed. The visibility protection provisions of the Clean Air Act include a "requirement" that certain sources "install and operate" BART controls if they emit any air pollutant that may reasonably be anticipated to cause or contribute to visibility impairment in any Class I area. 42 USC § 7491(b)(2)(A). Congress provided a specific mechanism by which sources could be exempted from the BART requirements: only if the Administrator determines that "a source does not or will not, by itself or in combination with other sources, emit any air pollutant which may reasonably be anticipated to cause or contribute to a significant impairment of visibility" in any Class I area. Id. § 7491(c)(1) (emphasis added). Any exemption "shall not be applicable to any fossil-fuel fired powerplant with a total design capacity of 750 megawatts or more" unless "such plant demonstrates" that it is located at such a distance from any Class I area that it does not and will not "emit any air pollutant which may reasonably be anticipated to cause or contribute to a significant impairment of visibility." Id. § 7491(c)(2). Moreover, the appropriate federal land managers must concur with any proposed exemption. Id. § 7491(c)(3).

EPA has not demonstrated that any of the BART-eligible Texas EGUs meet the statutory requirements for an exemption, nor has EPA obtained the concurrence of federal land managers. Although Texas' screening methodology purports to demonstrate that, viewed in isolation, EGU emissions of particulate matter do not exceed the state's 0.5 deciview contribution threshold, the plain text of the Clean Air Act allows for an exemption only when the "source" does "not emit any pollutant" which may cause or contribute to visibility impairment. As discussed above, and as the

record makes clear, numerous Texas EGUs emit pollutants—including SO_2, NOx, and particulate matter—which by themselves and in combination contribute to visibility impairment. And EPA has provided no statutory support for its narrow, pollutant-specific exemption of such sources from a BART analysis. Therefore, under the plain language of the Clean Air Act, EPA must require source-specific BART for each eligible EGU.

Comment: The screening approach conflicts with the Regional Haze Rule and BART Guidelines. EPA's screening approach is also directly contrary to the agency's regional haze regulations and mandatory BART guidelines, which do not provide for any exemptions from a five-factor BART analysis for specific pollutant unless the source meets specific criteria. Under EPA's BART Guidelines and the definition of BART, once a source has been determined to be subject to BART, a five-factor BART analysis must be conducted for each pollutant pursuant to 40 CFR Part 51, § 51.301 and Appendix Y, section IV.A. EPA's regulations further require that BART emission limits "must be established, *on a case-by-case basis* taking into consideration the technology available, the costs of compliance, the energy and non-air quality environmental impacts of compliance, any pollution control equipment in use or in existence at the source, the remaining useful life of the source, and the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology." 40 CFR Part 51, App. Y, section IV.A.

Texas and EPA indisputably failed to conduct any source-by-source evaluation for PM BART. Instead, Texas relied on a "screening" approach, which EPA asserts is authorized by a 2006 intra-agency memorandum regarding the implementation of the Clean Air Interstate Rule, which no longer exists. 83 FR at 43591. But again, EPA's regulations provide that for BART, "[t]he emission limitation must be established, on a case-by-case basis . . .." 40 CFR § 51.301 (emphasis added). Moreover, the regulation provides a narrow de minimis exemption for only those sources that emit less than 15 tons per year of particulate matter. Id. §308(e)(1)(ii)(C). If EPA had wanted to provide a different pollutant-specific exemption, it could and should have done so in the Regional Haze Rule itself, rather than through an interpretation that was not subject to notice and comment and lacks the force of law.

Moreover, neither EPA nor Texas attempted to demonstrate that this de minimis exemption applies to any of Texas' EGUs. And even if EPA's intra-agency memorandum provided a persuasive factual basis for Texas' screening analysis (it does not), EPA cannot ignore its binding regulations. Where, as here, an agency interpretation conflicts with the plain language of its regulations, the regulations must take precedence. See Christopher v. SmithKline Beecham Corp., 567 U.S. 142, 155 (2012) (holding that an agency's interpretation of its own regulations should be rejected when the interpretation is plainly erroneous or inconsistent with the regulation).

Comment: EPA's pollutant-specific approach departs from past practice. EPA's approval of a pollutant-specific screening approach not only conflicts with the agency's regulations and the Clean Air Act itself, but it arbitrarily departs from the agency's past practice. Indeed, in reviewing PM BART decisions in other state regional haze plans, EPA has rejected similar pollutant-specific approaches to BART determinations, stating that:

> under the [Regional Haze Rule], the determination of whether a source causes or contributes to visibility impairment is *not* made on a pollutant-by-pollutant basis. Rather, as explained in the BART Guidelines, states must 'look at SO_2, NO_X, and direct PM emissions in determining whether sources cause or contribute to visibility impairment . . . .'
>
> Once a facility is determined to be subject to BART, the [Regional Haze Rule] allows for the exemption of specific pollutants from a BART analysis *only if they are below specified de minimis levels*. Although a small pollutant-specific baseline visibility impact may be informative in determining what control option may be BART, *a BART analysis is still required* for any pollutant that exceeds the de minimis threshold at an otherwise subject-to-BART source.

78 FR 46142, 46155 (July 30, 2013) (emphasis added) (citing 40 CFR § 51.308(e)(1)(ii)(C) and partially disapproving Arizona regional haze plan). The Ninth Circuit subsequently upheld that rejection of a pollutant-specific screening approach. *Phoenix Cement Co. v. EPA*, 647 Fed. App'x. 702, 706 (9th Cir. 2016) (holding the "Regional Haze Rule does not expressly provide for any exemption of specific pollutants from BART determinations except through the 40–tons–per–year de minimis exception."). Without acknowledging its departure from that approach and without providing a reasoned and technically supportable explanation supported by the record, EPA now proposes to approve Texas's pollutant-specific screening analysis to avoid conducting a PM BART analysis. That is an impermissible result *Encino Motorcars, LLC v. Navarro*, — U.S. —, 136 S.Ct. 2117, 2125–26 (2016) (when agency changes its position, it must at least "display awareness that it is changing position" and "show that there are good reasons for the new policy.").

As required by the Regional Haze Rule and the BART Guidelines, EPA must conduct a BART screening analysis that evaluates the impacts of all pollutants together, not just PM. EPA must then conduct a source-specific, five-factor analysis of PM BART for each EGU subject to BART. The agency's failure to do so renders invalid the Trading Rule's proposed exemption of Texas sources from PM BART.

Comment: EPA has failed to demonstrate that the screening approach is appropriate here. Even if EPA's screening approach did not impermissibly conflict with the Clean Air Act, the Regional Haze Rule, and the agency's prior practice, the agency has failed to provide a rational explanation for its approach. Although EPA has cited a 2006 intra-agency memorandum as support for its pollutant-specific screening approach, EPA has failed to "offer[] a reasoned explanation for why it chose that interpretation" and applied it to these circumstances. Village of Barrington, Ill. V. Surface Transportation Board, 636 F.3d 650, 660 (D.C. Cir. 2011).

Moreover, because the agency's 2006 intra-office memorandum was never subject to notice and comment and is not binding in any event, the agency's informal memorandum is entitled to deference only to the extent it has the power to persuade. Skidmore v. Swift & Co., 323 U.S. 134, 140 (1944); see also Christensen v. Harris County, 529 U.S. 576, 587 (2000) (interpretations which lack force of law do not warrant Chevron deference); accord U.S. v. Mead Corp., 533 U.S. 218, 226-27 (2001).

EPA has failed to explain how its 2006 memorandum allowing pollutant-specific screening is applicable here, for several reasons. As an initial matter, EPA's 2006 memorandum contains virtually no analysis or rationale, and therefore lacks the power to persuade. Skidmore, 323 U.S. at 140. Indeed, the entirety of EPA's justification for using a pollutant-specific screening approach is contained in a single paragraph that does not cite or incorporate any technical justification whatsoever. Moreover, the memorandum contemplates the use of a pollutant-specific screening analysis in situations where a state is subject to both SO_2 and NO_X emission reductions under the Clean Air Interstate Rule. EPA cannot lawfully or rationally rely on a memo interpreting and applying a rule, CAIR, that no longer exists. To the extent the 2006 memo could theoretically be applied to other BART alternatives, the Texas trading scheme is not a lawful BART alternative, for all the reasons explained above.

Finally, EPA's use of a screening approach is arbitrary because unlike the Clean Air Interstate Rule, which provides the basis for EPA's 2006 memorandum, Texas is not subject to annual NO_X emission limits. Instead, the NO_X emissions reductions in Texas under CSAPR are limited to five months of the year—the ozone season. 83 FR at 43590. As a result, CSAPR does nothing to address the visibility impacts due to wintertime nitrate and particulate matter emissions. This undercuts the factual basis for using a pollutant-specific screening analysis for PM because, contrary to the agency's assumptions and "[d]ue to the complexity and nonlinear nature of atmospheric chemistry and chemical transformation among pollutants," there is no annual NO_X BART limit and the modeling cannot accurately predict whether PM alone (or in combination with NO_X during the wintertime) will impair visibility. 83 FR at 43590 n.25. Moreover, even within the five-month ozone season, CSAPR allows for temporal NO_X emissions variability, and power plants may exercise options that would lead to little or no NO_X emission reductions. These same concerns apply to SO_2 emissions under the Texas trading scheme. Thus, without knowing which EGUs will reduce NO_X and SO_2 pollutants by what amounts under CSAPR or the Texas trading scheme, or when they will do so, and because the CSAPR NO_X emissions reductions are applicable for less than half the year, EPA cannot simply cannot accurately predict PM-only visibility impacts under CSAPR and the Texas Trading scheme.

As noted above and in our May 5, 2017 comments, EPA's reliance on the MATS Rule as source-specific PM BART was arbitrary and capricious for several reasons. But even if EPA's earlier BART determinations were valid, the agency cannot rely on any purported PM or acid gas emission reductions required by that rule to screen out sources for further source-specific BART analysis in light of EPA stated intention to revisit and reduce the stringency of the MATS Rule. See *https://www.washingtonpost.com/energy-environment/2018/10/01/rollbackmercury-rule-trump-could-revamp-how-government-values-human-health/?utm_term=.ee47c0527fad.*

Comment: Texas' determination is based in part on the unsupported selection of 0.5 deciviews as the threshold for contribution to visibility impairment. In its SIP, Texas identified 126 sources as BART-eligible or potentially BART eligible. See Texas SIP at 9-2 to 9-4; 79 FR at 74845-47. Yet Texas ultimately concluded that no BART eligible source is subject to PM BART. Texas SIP at 9-10. This is because Texas adopted 0.5 deciviews as the screening threshold for "contribution" to visibility impairment. And in its 2016 BART FIP proposal, EPA proposed to agree with Texas's use of a 0.5 deciview "contribution" threshold for evaluating whether a unit was subject to BART. 82 FR at 919. But neither Texas nor EPA provided any technical or rational

justification for using that 0.5 deciview threshold. Indeed, there is no documentation in the record as to how or why Texas or EPA selected this threshold, and there is no legal support for such threshold.

EPA's BART Guidelines do not authorize states or EPA automatically to use a 0.5 deciview contribution threshold. Instead, the BART Guidelines state only that "any threshold that you use for determining whether a source 'contributes' to visibility impairment should not be higher than 0.5 deciviews." 40 CFR pt. 51, App. Y § III(A)(1). In the next sentence, the Guidelines instruct each state that it "should consider the number of emissions sources affecting the Class I areas at issue and the magnitude of the individual sources' impacts." Id. The Guidelines further provide that "a larger number of sources causing impacts in a Class I area may warrant a lower contribution threshold." Id.

Here, there is no evidence in the record that Texas or EPA ever considered any visibility impairment threshold other than 0.5 deciviews. As Texas' and EPA's list of eligible EGUs indicate, a large number of sources impact the Class I areas in Texas and in neighboring states. Indeed, the subset of sources that screened out of BART based on individual modeling have a combined, baseline impact of nearly 10 deciviews. EPA's own modeling indicated that Texas EGUs modeled impacts at Class I areas up to 10.498 deciviews. 82 FR at 921. And as EPA noted in its previous reasonable progress rulemaking, the visibility impairment caused by Texas EGUs at Oklahoma Class I areas is far greater than the visibility impacts of Oklahoma's own sources. 79 FR at 74866-67. Thus, the situation in Texas appears to be exactly what EPA had in mind when it noted that a contribution threshold lower than 0.5 deciviews may be appropriate given the number of sources and magnitude of the impact. Had Texas or EPA followed the BART Guidelines, they may well have selected a threshold lower than 0.5 deciviews.

Moreover, the Regional Haze regulations make clear that in determining whether a source contributes to "significant impairment" and is therefore subject to BART, EPA or the state must make a "case-by-case" determination of the "geographic extent, intensity, duration, frequency and time of the visibility impairment" in any Class I area, "and how these factors correlate with (1) times of visitor use of the mandatory Class I Federal area, and (2) the frequency and timing of natural conditions that reduce visibility." 40 CFR § 51.301. But again, there is no evidence in the record that Texas or EPA ever conducted considered any other visibility impairment threshold, or considered any of these factors in determining whether Texas EGUs significantly impair visibility at any Class I area.

In sum, Texas' use, and EPA's proposed approval, of a 0.5 deciview threshold has two fatal flaws: it is not based on the analysis prescribed by the BART Guidelines, and it is not supported by any analysis whatsoever in the record. Therefore, EPA must disapprove Texas' conclusions that sources are not subject to BART, where Texas screened out sources because of a visibility impact below 0.5 deciviews. EPA must then develop an appropriate contribution threshold and determine which sources have impacts above the contribution threshold EPA develops and are therefore subject to BART.

Response: We are affirming our approval of Texas' pollutant-specific PM screening analysis and determination that PM BART emission limits are not required for any Texas EGUs as in accordance with EPA guidance and the Regional Haze Rule. As we explained in our August 27, 2018 affirmation proposal, in a 2006 EPA memorandum titled "Regional Haze Regulations and Guidelines for Best Available Retrofit Technology (BART) Determinations," EPA stated that pollutant-specific screening can be appropriate where a state is relying on a trading program as a BART alternative to address both NO_X and SO_2 BART.[121] As discussed in the 2006 guidance, for EGU sources that are addressing the NO_X and SO_2 BART requirements by participation in a trading program as a BART alternative, such as CAIR, the state must still determine whether its BART-eligible EGUs are subject to review under BART for PM. In this situation, as this is the only determination that remains and because the task of predicting the impacts of PM on visibility is a relatively straight-forward exercise, unlike predicting the impacts of the non-linear reacting pollutants SO_2 and NO_X, a pollutant-specific basis to model only the impact of PM emissions on visibility is recommended to determine whether a source is subject to BART for PM. We note that the 2006 memorandum is consistent with the BART Guidelines, which provide that a state "may choose to perform an initial examination to determine whether a particular BART-eligible source or group of sources causes or contributes to visibility impairment in nearby Class I areas. If your analysis, or information submitted by the sources, shows that an individual source or group of sources (or certain pollutants from those sources) is not reasonably anticipated to cause or contribute to any visibility impairment in a Class I area, then you do not need to make BART determinations for that source or group of sources (or for certain pollutants from those sources)."[122] In sum, the 2006 EPA memorandum is consistent with the BART Guidelines and clearly states that a pollutant-specific analysis for PM emissions is an appropriate approach in certain carefully circumscribed circumstances, such as are present here.

While the commenter is correct that in our January 4, 2017 BART FIP proposal,[123] we initially proposed to disapprove Texas' technical evaluation and determination in the 2009 Regional Haze SIP that PM BART emission limits are not required for any of Texas' EGUs, this was because Texas was not participating in CSAPR for SO_2 or in any other SO_2 emissions trading program or BART alternative at the time and thus did not meet the criteria described in our 2006 guidance. In our October 2017 final action, we addressed the SO_2 BART requirements for Texas EGUs under a BART alternative consisting of an intrastate trading program. Given that Texas is relying on participation in the CSAPR ozone season trading program for NO_X to satisfy NO_X BART for Texas EGUs and is now also subject to a BART alternative consisting of an SO_2 intrastate trading program to satisfy the SO_2 BART requirements for Texas EGUs, Texas is relying on a trading program as a BART alternative to address both NO_X and SO_2 BART. Thus, pollutant-

[121] *See* discussion in Memorandum from Joseph Paisie to Kay Prince, "Regional Haze Regulations and Guidelines for Best Available Retrofit Technology (BART) Determinations," July 19, 2006. While the memorandum specifies that pollutant-specific screening is appropriate for states relying on CAIR, it is reasonable to infer that other trading programs, such as CSAPR and the Texas SO_2 Trading Program, also qualify to use this approach.
[122] 40 CFR part 51 Appendix Y, Section III.
[123] 82 FR 912.

specific screening for PM as performed by Texas in its 2009 SIP submittal was appropriate, consistent with the BART Guidelines[124] and the 2006 EPA memorandum.[125]

We disagree with the commenter's assertion that EPA's approval of a pollutant-specific screening approach arbitrarily departs from the agency's past practice. EPA has previously determined that this approach is appropriate for EGUs where a State relied on CAIR or CSAPR to satisfy the BART requirements for SO_2 and NO_X and has approved SIPs where the State required its BART-eligible EGUs to only evaluate PM emissions for determining whether they are subject to BART, and, if applicable, for performing a BART control assessment. We also note that in these analyses EPA approved a threshold of 0.5 dv for determining which sources were subject to BART.[126]

With regard to the commenter's assertion that our approval of Texas' selection of 0.5 dv as the threshold for visibility impairment for PM was improper, as an initial matter, as explained in our August 2018 proposal to affirm the October 2017 final rule promulgating the Texas SO_2 Trading Program, we did not reopen the subject-to-BART determinations for sources not covered by the trading program, which screened out of the BART program based on consideration of all visibility pollutants.[127] With respect to the BART sources included in the trading program, EPA requested comment on its PM-specific screening analysis.[128] EPA's basis for approving the 0.5 dv value for screening purposes was that EPA's BART Guidelines allow states conducting source-by-source BART determinations to exempt sources with visibility impacts as high as 0.5 dv.[129,130] Further, the BART Guidelines provide that in setting a contribution threshold, states should "consider the number of emissions sources affecting the Class I areas at issue and the magnitude of the individual sources' impacts." States have the discretion within the Clean Air Act, Regional Haze Rule, and BART Guidelines to set an appropriate contribution threshold and are free to use a threshold lower than 0.5 dv if they conclude that the location of a large number of BART-eligible sources in proximity of a Class I area justifies this approach. Texas did not determine in its 2009 Regional Haze SIP that there were circumstances in this case to justify the selection of a lower threshold. EPA continues to find that Texas was within its discretion to select a threshold of 0.5 dv in its BART screening analysis. In light of the above-referenced 2006 memorandum recognizing the availability of a pollutant-specific approach to BART where BART sources are already separately controlled for SO_2 and NO_X by one or more BART alternative trading programs, we are finalizing our proposed affirmation that no BART-eligible source in Texas is subject to BART for PM on a pollutant-specific basis. In finalizing an affirmation of our approval of Texas' determinations regarding PM BART, we offer one additional note. We originally proposed to

---

[124] 40 CFR part 51 Appendix Y, Section III.
[125] *See* Memorandum from Joseph Paisie to Kay Prince, "Regional Haze Regulations and Guidelines for Best Available Retrofit Technology (BART) Determinations," July 19, 2006.
[126] See for example the approval of Regional haze SIPs for Georgia (77 FR 11452 for proposed rule and 77 FR 38501 for final rule), South Carolina (77 FR 11894 for proposed rule and 77 FR 38509 for final rule), and Kentucky (76 FR 78194 for proposed rule and 77 FR 19098 for final rule).
[127] 83 FR 43598 n. 80.
[128] *Id.* 43592-93.
[129] 70 FR 39104, 39161 (July 6, 2005) and 40 CFR part 51 Appendix Y, Section III.A.1.
[130] 82 FR at 48346 and 79 FR at 74848.

approve Texas' screening approach in 2014,[131] and our October 2017 final action again relied on our technical evaluation in that proposal for the basis of our approval. We therefore incorporate by reference the technical evaluation regarding this issue from our 2014 proposal into the record for this action.[132]

Comment: We received comments asserting that no sources in Texas should be subject to BART for particulate matter (PM). The TCEQ, AEP, LCRA, NRG Texas, SPS, and Vistra support the EPA determination that no sources in Texas are subject to BART for particulate matter.

Response: We appreciate the commenters' support of our proposed affirmation for the determination that no sources in Texas are subject to BART for PM. After carefully considering all comments we received, we are finalizing this proposed affirmation without changes from proposal.

Comment: The 2006 intra-agency memorandum on which EPA relies to propose approval of Texas' pollutant-specific screening approach is inconsistent with the Clean Air Act and the Regional Haze Rule, and EPA's interpretation of its regulations is therefore not entitled to deference**.** EPA cited a 2006 intra-agency memorandum as support for its pollutant-specific screening approach in the proposed Texas FIP. The 2006 intra-agency memorandum's suggestion that EPA need not conduct a source-specific PM BART analysis is inconsistent with plain language of the Clean Air Act and Regional Haze Rule, and therefore the agency's interpretation of its regulations is not entitled to deference. *Bowles v. Seminole Rock & Sand Co*., 325 U.S. 410, 414 (1945) (agency interpretation of its regulation is not controlling where "it is plainly erroneous or inconsistent with the regulation"); *see also Auer v. Robbins*, 519 U.S. 452, 461 (1997) (same). In any event, the notion that EPA is entitled to deference in interpreting its own regulations is on shaky ground. Indeed, the concept of *Auer* deference violates the separation of powers principle, because it permits the same branch of government to both enact a rule and to interpret it. *Auer* deprives the judiciary of the power to "say what the law is," as required under Article III. Finally, courts have repeatedly criticized agency use of guidance documents in the form of interpretive rules and policy statements to reinterpret regulations, recognizing the potential problem that "[l]aw is made, without notice and comment, without public participation, and without publication in the Federal Register or the Code of Federal Regulations." *Decker v. Northwest Envtl. Def. Ctr.*, 133 S.Ct. 1326, 1341(2013); *Perez v. Mortgage Bankers Ass'n*, 135 S. Ct. 1199, 1213–14 (Mar. 9, 2015); *see also Appalachian Power Co. v. EPA*, 208 F.3d 1015, 1020 (D.C. Cir. 2000) (criticizing agency use of guidance documents in the form of interpretive rules and policy statements, recognizing the potential problem that "[l]aw is made, without notice and comment, without public participation, and without publication in the Federal Register or the Code of Federal Regulations.")

Response: EPA has the authority to develop and implement policies and guidance. EPA sometimes issues policy or guidance to encourage compliance with environmental requirements. Policy documents may represent EPA's official interpretation or view of specific issues. However, ultimately, EPA's actions with regards to guidance documents must be consistent with applicable

[131] *See* 79 FR 74817, 74848 (Dec. 16, 2014).
[132] 79 FR 74817, 74848.

statutory and regulatory requirements. The EPA disagrees that its reference to the 2006 guidance is inconsistent with the CAA or constitutes a legislative or interpretive rule, and we have reasonably relied, in part, on this guidance document in our approval of Texas' determination that no BART-eligible sources in Texas are subject to BART for PM on a pollutant-specific basis. As explained in response to similar comments above, application of pollutant-specific screening for PM is appropriate in Texas and is not inconsistent or at odds with either the CAA statute or applicable EPA regulations, for the reasons explained in response to those comments. We, therefore, disagree that our interpretation of the 2006 memorandum here is inconsistent with the Clean Air Act regarding a pollutant-specific screening approach for PM BART.

v. Subject-to-BART Determinations

Comment: Fayette Power Plant Units 1 & 2 (FPP U1 & U2) are not subject to BART. We received a comment from LCRA stating their Fayette Power Plant Units 1 & 2 (FPP U1 & U2) should not be considered subject to BART, as was determined by EPA in the January 2017 FIP proposal. LCRA states that EPA improperly used data from 2000-2004, which pre-dated the installation of wet flue gas desulfurization scrubbers, to assess visibility impacts of FPP U1 & U2. LCRA requests that EPA concur that the most currently available data must be used for visibility impact determinations under the regional haze program. However, LCRA is not requesting that EPA remove FPP U1 & U2 from the Texas FIP at this time. LCRA supports the Texas FIP and the inclusions of FPP U1 & U2.

Response: We appreciate LCRA's concerns regarding Fayette Power Plant Units 1 and 2, and we agree that Fayette Units 1 and 2 are currently equipped with high performing wet FGDs. We note that, as discussed in our October 2017 final rule and as affirmed in this rulemaking, we are not making a subject-to-BART determination for those sources covered by the Texas SO_2 Trading Program. The relevant BART requirement for the participating BART-eligible units are encompassed by BART alternatives for NO_X and SO_2 such that we did not deem it necessary to finalize subject-to-BART findings for these EGUs. In addition, we are affirming our approval of the determination in the 2009 Texas Regional Haze SIP that none of these sources are subject to BART for PM. Therefore, comments concerning the emissions utilized in our subject-to-BART modeling for the sources participating in the SO_2 trading program are no longer relevant.

6. Reasonable Progress

Comment: EPA cannot bypass the source-specific analyses required by section 51.308(e)(2)(i)(C) by simply asserting that its trading scheme was "designed to be part of the long-term strategy 'to meet' reasonable progress requirements." 83 FR at 43598. The "long-term strategy must include enforceable emissions limitations, compliance schedules, and other measures as necessary to achieve the reasonable progress goals established by States having mandatory Class I Federal areas." 40 CFR § 51.308(d)(3). Given that the long-term strategy consists of all the measures in a regional haze plan, EPA's assertion that BART requirements are designed to meet the long-term strategy requirements would mean that the exception would swallow the rule in 40

CFR § 51.308(e)(2)(i)(C). EPA's claim that the Trading Rule is somehow designed to meet the reasonable progress requirements is also contradicted by EPA's statement elsewhere in the Rule that it is not taking action on the reasonable progress elements that the Fifth Circuit remanded to the agency. 83 FR at 43,597 n.78 ("However, the EPA is not determining at this time that this final action fully resolves the EPA's outstanding obligations with respect to reasonable progress that resulted from the Fifth Circuit's remand of our reasonable progress FIP. We intend to take future action to address the Fifth Circuit's remand."). Setting aside this internal inconsistency, the Texas SO_2 Trading Program cannot be designed to satisfy the reasonable progress requirements for the additional reason that the Trading Program makes no progress at all; as noted throughout these comments, the allowances available under the Trading Program exceed the covered sources' emissions in 2015, 2016, and 2017, and thus the Trading Program will not reduce emissions or improve visibility. Moreover, the Trading Program cannot possibly be designed to satisfy the reasonable progress requirements because EPA has failed to consider the four statutory factors for reasonable progress, and the regulations do not authorize a reasonable progress alternative program comparable to BART alternatives.

Response: As discussed in Section III.A.2 of the Federal Register notice for this final action, we are not finalizing a position that the Texas SO_2 Trading Program is also designed to be part of the long-term strategy needed to meet reasonable progress requirements of the Regional Haze Rule at this time. While the program will certainly contribute to reasonable progress toward meeting the visibility goals of the regional haze program through enforceable reductions of visibility-impairing SO_2 emissions from baseline emission levels, EPA is making clear that the necessary analysis, and potentially, emission controls, to fully address the long-term strategy and reasonable progress for Texas will take place in a separate, future action.

Comment: EPA's statements in the FIP proposal regarding its outstanding obligations with respect to reasonable progress are contradictory. The FIP proposal states that EPA "is not determining now that this proposal serves to also resolve the EPA's outstanding obligations with respect to reasonable progress that resulted from the Fifth Circuit's remand of our reasonable progress FIP." 83 FR at 43595. At the same time, however, EPA suggests that the "Texas trading program is designed to provide the measures that are needed to address interstate visibility transport requirements for several NAAQS and to be part of the long-term strategy needed to meet the reasonable progress requirements of the Regional Haze Rule." 83 FR at 43595. EPA also states that "[i]n addition to being a sufficient alternative to BART, the trading program secures reductions consistent with visibility transport requirements and is part of the long-term strategy to meet the reasonable progress requirements of the Regional Haze Rule." *Id.* at 43597. To begin, EPA's statements contradict each other, as EPA says on the one hand that it is not determining whether this plan satisfies the reasonable progress requirements, yet on the other hand claims that this plan is designed to satisfy reasonable progress requirements. EPA cannot have it both ways.

Response: We are finalizing our affirmation that the Texas SO_2 Trading Program is designed to provide the measures that are needed to address interstate visibility transport requirements for several NAAQS. As discussed in Section III.A.2 of the Federal Register notice for this final action, we are not finalizing a position that the Texas SO_2 Trading Program is also

designed to be part of the long-term strategy needed to meet reasonable progress requirements of the Regional Haze Rule at this time. While the program will contribute to reasonable progress toward meeting the visibility goals of the regional haze program through enforceable reductions of visibility-impairing SO_2 emissions from baseline emission levels, the necessary analysis, and potentially, emission controls, to fully address reasonable progress for Texas will take place in a separate, future action. Thus, we are not making the determination that this final action fully resolves the EPA's outstanding obligations with respect to reasonable progress that resulted from the Fifth Circuit's remand of our reasonable progress FIP.

Comment: To the extent the agency is suggesting that the BART trading proposal might satisfy Texas' separate reasonable progress obligations, that is incorrect because the Clean Air Act and Regional Haze Rule require EPA to consider the four reasonable progress factors. EPA's Trading Rule cannot satisfy EPA's obligation to address reasonable progress requirements including consideration of the four statutory "reasonable progress" factors, 42 USC § 7491(g)(1), in determining the enforceable emissions limitations "necessary to achieve the reasonable progress goals," for at least two reasons. 40 CFR § 51.308(d)(3). First, the Clean Air Act, the Regional Haze Rule, and EPA's practice make clear that in evaluating reasonable progress, EPA must consider whether additional emission reductions are required from Texas EGUs and other sources—whether subject to BART or not—to make reasonable progress toward natural visibility. Under the Clean Air Act and the Regional Haze Rule, EPA must include emission limits and other measures as may be necessary to ensure reasonable progress towards meeting the national goal of eliminating and remedying visibility impairment in Class I areas. 42 USC § 7491(b)(2); 40 CFR § 51.308(d)(1)(i)(A), (d)(3). "In determining reasonable progress" measures that may be necessary to achieve that goal, 42 USC § 7491(b)(2), the Act requires that EPA "shall" take into consideration four statutory reasonable progress factors: (1) the cost of compliance, (2) the time necessary for compliance, (3) the nonair environmental quality impacts of compliance, and (4) the remaining useful life of any source subject to the Clean Air Act's visibility provisions. *Id.* § 7491(g)(1). EPA "commonly refer[s] to the evaluation of these four statutory factors as the "four-factor analysis" or "reasonable progress analysis." 81 FR 66332, 66360 (Sept. 27, 2016).

Read together, sections 7491(b)(2) and (g)(1) make clear that, "in evaluating reasonable progress," EPA must consider emission limits necessary to make reasonable progress from any individual air pollution "*sources*" that contribute to impairment in Class I areas, regardless of whether those sources are BART eligible. *Id.*; *see also* 40 CFR § 51.308(d)(3)(iv) (emphasis added). Congress's careful reference to consideration of "emission limits at all existing "sources" makes clear that EPA has an obligation to consider additional pollution reductions at all *individual sources, whether eligible for BART or not. See Corley v. United States*, 556 U.S. 303, 314 (2009) (statutes must "be construed so that effect is given to all its provisions, so that no part will be inoperative or superfluous, void or insignificant").

EPA's long-standing practice and interpretations also make clear that EPA must conduct a four-factor analysis of whether pollution controls are needed at individual sources—whether

subject to BART or not—to make reasonable progress. *See* 82 FR at 3080, 3090-91; 79 FR 74828-30. For example, in the haze rule for Arkansas, EPA stated that:

> "[t]he statute and regulations are both clear that the states or EPA in a FIP have the authority and obligation to evaluate the four reasonable progress factors and that the decision regarding the controls required to make reasonable progress and the establishment of the RPG must be based on these factors identified in the CAA section 169A(g)(1) and the Regional Haze regulations under §51.308(d)(1)(i)(A)." 81 FR 66360.

EPA's Regional Haze Rule revisions confirm that EPA must consider whether measures are needed at individual sources, whether subject to BART or not, to make reasonable progress at Class I areas:

> "If a State contains sources which are reasonably anticipated to contribute to visibility impairment in a mandatory Class I Federal area in another State for which a demonstration by the other State is required under (f)(3)(ii)(A), the State must demonstrate that there are no additional emission reduction measures for anthropogenic sources or groups of sources in the State that may reasonably be anticipated to contribute to visibility impairment in the Class I area that would be reasonable to include in its own long-term strategy. The State must provide a robust demonstration, including documenting the criteria used to determine which sources or groups of sources were evaluated and how the four factors required by paragraph (f)(2)(i) were taken into consideration in selecting the measures for inclusion in its long-term strategy." 40 CFR § 51.308(f)(3)(ii)(B).

Second, EPA's trading scheme cannot substitute for a four-factor reasonable progress analysis because, unlike the BART provisions of the Clean Air Act and Regional Haze Rule, there are no statutory or regulatory exemptions that allow EPA to avoid conducting a separate reasonable progress analysis, which evaluates each of the four statutory reasonable progress factors. While the Clean Air Act itself provides a narrow process for exempting eligible sources from a BART analysis, 42 USC § 7491(c), and the Regional Haze Rule allows states to adopt BART alternatives in narrow circumstances, 40 CFR § 51.308(e)(2), there are no such exemptions or alternatives for reasonable progress. Instead, *every* plan must include enforceable emissions limitations, compliance schedules, and other measures as necessary to achieve reasonable progress. *Id.* § 51.308(d)(3). And the Clean Air Act itself requires consideration of four factors (the cost of compliance, the time necessary for compliance, the nonair environmental quality impacts of compliance, and the source's remaining useful life) "in determining reasonable progress." 42 USC § 7491(g)(1).

If Congress had wanted to provide an exemption from the consideration of reasonable progress, it would have said so expressly. Instead, Congress included a separate definition for reasonable progress, which is one of the cornerstones of every haze plan. EPA does not have the authority to rewrite the statute to allow states to rely on a BART trading alternative in lieu of a consideration of the four statutory reasonable progress factors.

Response: As discussed in Section III.A.2 of the Federal Register notice for this final action, we are not finalizing a position that the Texas SO_2 Trading Program is also designed to be part of the long-term strategy needed to meet reasonable progress requirements of the Regional Haze Rule at this time. While the program will contribute to reasonable progress toward meeting the visibility goals of the regional haze program through enforceable reductions of visibility-impairing SO_2 emissions from baseline emission levels, the necessary analysis, and potentially, emission controls, to fully address reasonable progress for Texas will take place in a separate, future action.

Comment: Even if EPA's Trading Rule was a proper BART alternative, it does not exempt BART sources from emission control requirements to advance reasonable progress if they continue to cause or contribute to visibility impairment. The Regional Haze Rule requires states to look beyond BART for additional emissions reductions that provide for "reasonable progress" toward 2064 natural visibility goal for Class I national parks and wilderness areas. 42 USC § 7491(b)(2)(B); 40 CFR § 51.308(d). Under section 51.308(e)(5) of the Regional Haze Rule, "[a]fter a State has met the requirements for BART or implemented emissions trading program or other alternative measure that achieves more reasonable progress than the installation and operation of BART, BART- eligible sources will be subject to the requirements of paragraph (d) of this section in the same manner as other sources." In *Utility Air Regulatory Group v. EPA*, 471 F.3d 1333 (D.C. Cir. 2006), the D.C. Circuit upheld EPA's "Better-than-BART" determination for CSAPR's predecessor, but the court in no way reduced the states' or EPA's authority and obligation to require updated pollution controls to ensure reasonable progress at each Class I area. The court stated:

> "[U]nless there is some reasonable excuse, [a regional haze plan's reasonable] progress must be sufficient to attain natural visibility conditions at every single Class I area by 2064. Indeed, EPA emphasized in its briefs that because 'the regulatory scheme as a whole (and all the regulations promulgated pursuant to it) must be designed to achieve the goal [of reasonable progress] at *every* Class I area,' states must, if CAIR is substituted for BART and is not likely to achieve that goal, take 'other measures as necessary to achieve reasonable progress goals including at *each* Class I area.'" *Id.* at 1340 (internal citations omitted); *see also* 70 FR at 39138 ("The reasonable progress test in the Regional Haze Rule remains as a separate test from [CAIR's] better than BART" determination.).

The court recognized that BART and "Better-than-BART" alternatives are merely one mechanism for achieving the Clean Air Act mandate of restoring natural visibility conditions to each Class I national park and wilderness area.

Response: As discussed in Section III.A.2 of the Federal Register notice for this final action, we are not finalizing a position that the Texas SO_2 Trading Program is also designed to be part of the long-term strategy needed to meet reasonable progress requirements of the Regional Haze Rule at this time. While the program will contribute to reasonable progress toward meeting

the visibility goals of the regional haze program through enforceable reductions of visibility-impairing SO_2 emissions from baseline emission levels, the necessary analysis, and potentially, emission controls, to fully address reasonable progress for Texas will take place in a separate, future action.

Comment: EPA cannot rely on a Q/d analysis as a substitute for conducting a four-factor reasonable progress analysis. EPA cannot rely on its Q/d analysis as a substitute for conducting a four-factor reasonable progress analysis. The Clean Air Act states that EPA "shall" take into consideration four statutory reasonable progress factors in "determining reasonable progress." 42 USC § 7491(g)(1). EPA cannot sidestep that statutory obligation by pointing to a Q/d screening analysis for assessing visibility impacts to Class I areas. A simple Q/d analysis cannot be used in lieu of or to avoid a four-factor reasonable progress analysis, as required by the Clean Air Act and the Regional Haze Rule. Even if it could, EPA's Q/d analysis is fatally flawed, for the reasons discussed in other comments.

Response: As discussed in Section III.A.2 of the Federal Register notice for this final action, we are not finalizing a position that the Texas SO_2 Trading Program is also designed to be part of the long-term strategy needed to meet reasonable progress requirements of the Regional Haze Rule at this time. While the program will contribute to reasonable progress toward meeting the visibility goals of the regional haze program through enforceable reductions of visibility-impairing SO_2 emissions from baseline emission levels, the necessary analysis, and potentially, emission controls, to fully address reasonable progress for Texas will take place in a separate, future action.

Comment: EPA cannot rely on the Trading Rule to satisfy the long-term strategy and reasonable progress requirements, and must instead separately evaluate and establish RPGs for all Class I areas affected by Texas emissions to ensure reasonable progress. The Trading Rule cannot be relied upon to satisfy the substantive requirements of the Regional Haze Rule's long-term strategy and reasonable progress requirements for another reason: the issuance of a BART FIP does not negate EPA's obligation to distinctly and specifically address the long-term strategy and reasonable progress requirements outstanding for Texas' first planning period regional haze obligations. Sierra Club does not suggest that EPA must conduct both a BART and reasonable progress analysis at the same time, and in the same rulemaking, but the agency cannot rely on the proposed Trading Rule as a substitute for satisfying reasonable progress. The D.C. Circuit has explained that the overarching mandate of the Clean Air Act and the Regional Haze Rule is a state-wide regional haze plan that achieves reasonable progress toward the 2064 natural visibility goal. *Util. Air Regulatory Group*, 471 F.3d at 1340; *Ctr. for Energy and Econ. Dev. v. EPA,* 398 F.3d 653, 660 (D.C. Cir. 2005).

To meet the 2064 goal, a full regional haze plan must include two critical components: BART limits *and* a long-term strategy to achieve reasonable progress toward that goal. 42 USC § 749l (b)(2)(A) & (b)(2)(B); 40 CFR § 51.308(d)(l), (d)(3), (e); *see also* 42 USC § 749l (b)(2). In order to set the reasonable progress goals in the long-term strategy, EPA must, among other things,

determine a "uniform rate of progress" required to meet that goal. 40 CFR § 51.308(d)(1)(B). In particular, every regional haze plan must also include an evaluation of the rate of progress—and a determination of reasonable progress goals—needed to reach natural visibility conditions by 2064. *Id.* § 51.308(d)(1)(B). These goals are informed by, and based on, an evaluation of emission reductions available for major and minor sources under the four reasonable progress factors. If a state selects a reasonable progress goal that achieves a slower rate of progress than the rate of progress necessary to achieve natural visibility by 2064, the state must demonstrate, based on an evaluation of those four statutory reasonable progress factors, "that the rate of progress for the implementation plan to attain natural conditions by 2064 is not reasonable." *Id.* § 51.308(d)(1)(ii).

Additionally, each state must "demonstrate that it has included in its implementation plan all measures necessary to obtain its share of the emission reductions needed to meet the progress goal for" any affected Class I area in *any other state*. *Id.* § 51.308(d)(3)(ii)-(iii). Specifically, the state "must consult" with any other state which "may reasonably be anticipated to cause or contribute to visibility impairment" at a Class I area within the state, and "develop coordinated emission management strategies" to ensure reasonable progress toward the national goal in each Class I area that may be affected by the state's emissions. *Id.* § 51.308(d)(1)(iv), (3)(i). Each state must then "document the technical basis, including modeling, monitoring and emissions information" to "demonstrate that it has included in its implementation plan all measures necessary to obtain its share of the emission reductions needed to meet the progress goal for" the affected Class I area. *Id.* § 51.308(d)(3)(ii)-(iii). In conducting this interstate consultation and establishing control measures that will achieve reasonable progress at all affected Class I areas, the state (or EPA where the state fails to do so) must consider the four statutory factors outlined in Section 169A(g)(1) of the Clean Air Act—"the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life" of any potentially affected sources. 42 USC § 7491(g)(1); *see also* 79 FR at 74829 (explaining the interstate consultation provisions).

In disapproving Texas's 2009 reasonable progress analysis, EPA concluded that Texas's RPGs for Big Bend and Guadalupe Mountains violated applicable Clean Air Act requirements, in part, because the state failed to demonstrate, based on an evaluation of the four reasonable progress factors, that there were no additional emission reductions that could make greater reasonable progress toward natural visibility. Indeed, under Texas's plan, natural visibility conditions would not be achieved until 2155 at Big Bend and 2081 at Guadalupe Mountains, or later. And Texas did not adequately explain, let alone include a technical evaluation of, why the 2064 natural visibility goal is not reasonable at Big Bend and Guadalupe Mountains, as the Regional Haze Rule requires. 40 CFR § 51.308(d)(1)(ii).

EPA also concluded that Texas's long-term strategy was based on a technically inadequate consultation with Oklahoma and did not require the control measures needed for reasonable progress at the Wichita Mountains. As EPA explained in issuing its reasonable progress FIP, Texas sources cause significant visibility impairment at the Wichita Mountains Wilderness Area in Oklahoma that are "several times greater than the impact from Oklahoma's own point sources." 79

FR at 74822. Texas sources also cause visibility impairment at Caney Creek Wilderness Area in Arkansas and many other out-of-state Class I areas, including, but not limited to, Carlsbad Caverns National Park, Bandelier National Monument, and the Salt Creek and White Mountain Wilderness Areas in New Mexico; Great Sand Dunes, Rocky Mountain, and Mesa Verde National Parks in Colorado; Upper Buffalo Wilderness Area in Arkansas; Hercules-Glades and Mingo Wilderness Areas in Missouri; and Breton Wilderness Area in Louisiana. *Id.* at 74830. Even if EPA's Trading Rule was a proper BART alternative, such a finding does not address or correct Texas' flawed RPGs. Nor does it correct Texas's failure to consult with Oklahoma, other states with affected Class I areas, or the Federal Land Managers to evaluate and include "all measures necessary to obtain its share of the emission reductions needed to meet the progress goal for" the affected Class I area. 40 CFR § 51.308(d)(3)(ii)-(iii). There is no evidence in the record that EPA consulted with any state or Federal Land Manager in developing the Trading Rule, or to meet the reasonable progress requirements of the Regional Haze Rule. Although EPA consulted with the Federal Land Managers in implementing CSAPR and in proposing the 2016 source-specific BART FIP, the agency cannot rely on consultations for different rules—which were based on different emission reductions and different analyses—to satisfy their obligation to consult with states and Federal Land Managers for implementation plans or revision. 40 CFR §51.308(a).

The Trading Rule does not exempt EPA from demonstrating, based on a consideration of the reasonable progress factors, that there are no additional measures or controls that could achieve reasonable progress toward the national 2064 visibility goal. EPA's Trading Rule, on its face, fails to evaluate Texas' and Oklahoma's RPGs or to consider whether additional emission reductions (beyond BART for SO_2) may be necessary to ensure reasonable progress. Although Texas and industry groups have argued that Texas and Oklahoma Class I areas have already achieved the reasonable progress goals that EPA established in its 2015 FIP, EPA has repeatedly and consistently taken the position that meeting a specific reasonable progress goal is not, itself, a "safe harbor," and does not relieve the state of the obligation to consider additional measures for reasonable progress. If it is reasonable to make more progress than the URP, a state must do so, as EPA explained in the 1999 regional haze rule. See 64 FR at 35732.

Response: As discussed in Section III.A.2 of the Federal Register notice for this final action, we are not finalizing a position that the Texas SO_2 Trading Program is also designed to be part of the long-term strategy needed to meet reasonable progress requirements of the Regional Haze Rule at this time. While the program will contribute to reasonable progress toward meeting the visibility goals of the regional haze program through enforceable reductions of visibility-impairing SO_2 emissions from baseline emission levels, the necessary analysis, and potentially, emission controls, to fully address reasonable progress for Texas will take place in a separate, future action.

Comment: Given that EPA's Trading Rule does not require any pollution controls and instead allows for increases in pollution, EPA does not explain how the Trading Rule would ensure reasonable progress toward natural visibility. Aside from not evaluating reasonable progress as a whole, EPA's Trading Rule does not evaluate how, in the absence of the SO_2 reductions no longer

required under the agency's source-specific BART FIP or the 2015 reasonable progress FIP, Texas and Oklahoma will maintain a reasonable rate of progress toward restoring natural visibility conditions. Even under EPA's 2015 reasonable progress FIP and its proposed BART FIP, which would have required significant emission reductions (rather than the emission increases that would be allowed under EPA's proposed trading scheme), Wichita Mountains still would not reach natural visibility for another 82 years. 79 FR at 74843, 74887. Meanwhile, even with EPA's previous BART and reasonable progress FIPs, which required hundreds of thousands of tons SO_2 reductions in comparison to the Trading Rule, Big Bend and Guadalupe Mountains will not achieve natural visibility conditions for another 173 years and 151 years, respectively, at the earliest. *Id.*

EPA does not explain how this Trading Rule, which does not require any pollution reductions and, instead, allows for increases in pollution compared to actual 2016 and 2017 emissions, and compared to the Texas reasonable progress or source-specific BART FIPs, would ensure "reasonable" progress toward natural visibility. The Trading Rule actually allows each active unit—and some retired units—to emit more emissions than under the 2017 rule or under EPA's 2015 reasonable progress SIP [sic]. It is not clear how EPA can allow overall emissions to go up and still comply with the basic reasonable progress requirements of the Regional Haze Rule. Under the regulations, EPA may not adopt a reasonable progress goal that represents less visibility improvement than is expected to result from implementation of other requirements of the Clean Air Act during the applicable planning period. 40 CFR § 51.308(d)(1)(vi). By allocating emission credits to units that have already retired and relinquished their operating permits, or by reallocating those retired credits to other sources, EPA would necessarily be allowing less visibility improvement than is expected to result from already enforceable provisions of the Act—namely, the requirement that unpermitted sources not emit any pollutants.

EPA does not mention, let alone evaluate, the effect the agency's proposed revisions of various air quality rules—including the planned rollback MATS Rule, its refusal to update CSAPR, and planned revisions to the SO_2 and ozone NAAQS implementation rules—will have on visibility or the ability of Texas' and other states affected Class I areas to make reasonable progress toward the national goal. It is arbitrary and unlawful for EPA to rely on those rules as part of its baseline assumptions, while simultaneously planning to revise or withdraw them.

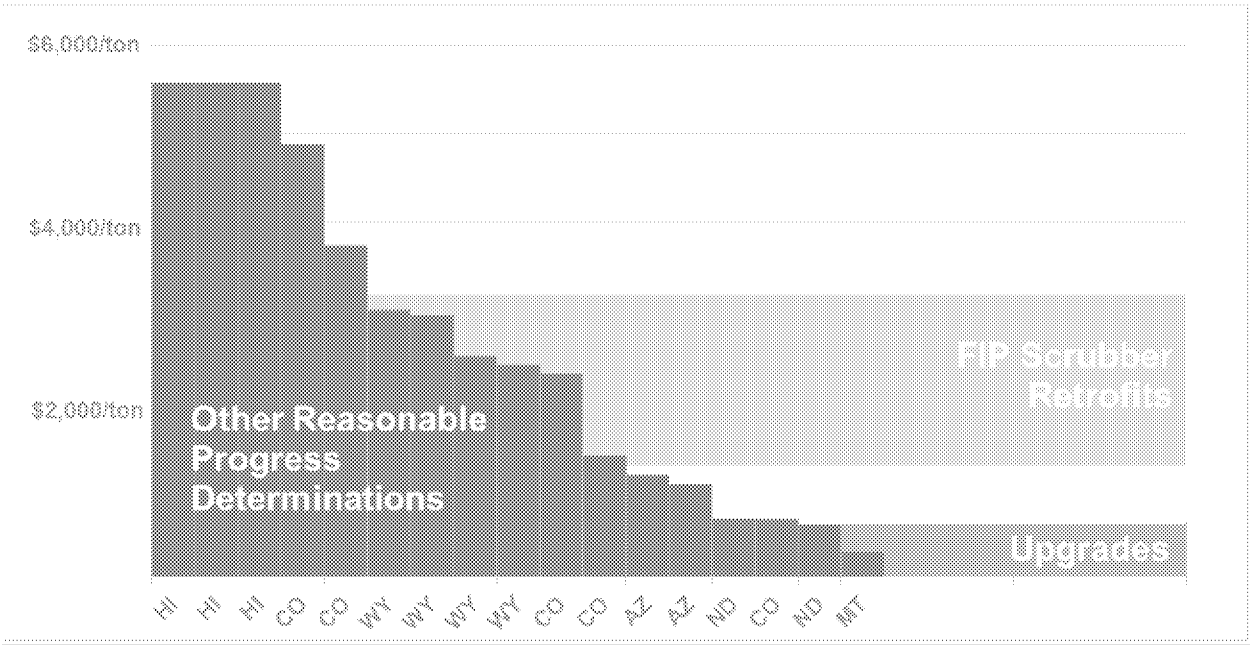
Response: As discussed in Section III.A.2 of the Federal Register notice for this final action, we are not finalizing a position that the Texas SO_2 Trading Program is also designed to be part of the long-term strategy needed to meet reasonable progress requirements of the Regional Haze Rule at this time. While the program will contribute to reasonable progress toward meeting the visibility goals of the regional haze program through enforceable reductions of visibility-impairing SO_2 emissions from baseline emission levels, the necessary analysis, and potentially, emission controls, to fully address reasonable progress for Texas will take place in a separate, future action.

Comment: In the 2016 Texas FIP, EPA conducted a reasonable progress analysis and created a record that made clear that additional emissions reductions from Texas EGUs are cost-

effective and necessary to improve visibility at Texas and Oklahoma Class I areas. On January 5, 2016, EPA did just that, and issued a final FIP that fully evaluated and applied the Clean Air Act's reasonable progress factors and proposed technically feasible and cost-effective SO_2 emission limitations for 15 Texas EGUs. 81 FR 296. The 2016 reasonable progress rule was supported by detailed, source-specific analyses of the cost of SO_2 controls, the level of control achievable by different technologies, estimated emissions reductions, and detailed modeling projections of the visibility improvement from operation of such controls. *See generally id.*; 79 FR 74818 (proposed rule); Reasonable Progress FIP TSD; *see also* Report of Dr. H. Andrew Gray, attached as Exhibit 18 Report of Victoria Stamper, attached as Exhibit 19 ("April 2015 Stamper Report").

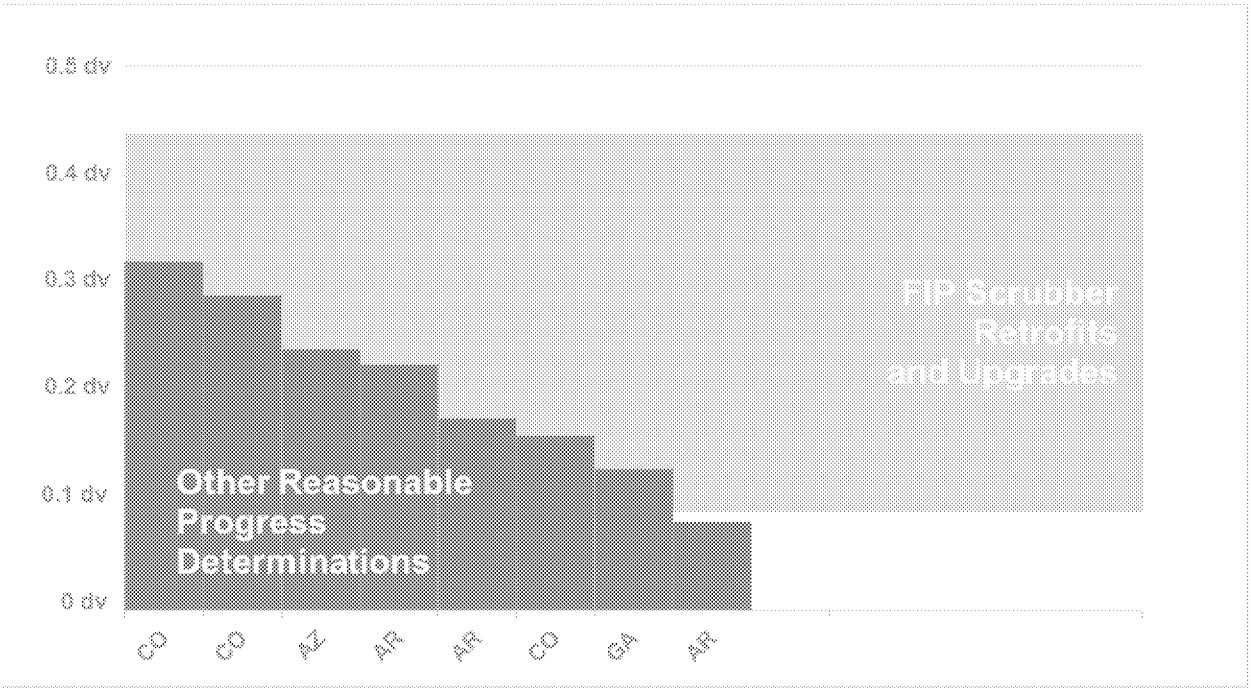
The 2016 FIP rulemaking record makes clear that there are, in fact, additional emission reductions from many of Texas's largest and most polluting EGUs that are cost effective and necessary to improve visibility at Texas and Oklahoma Class I area. Even a cursory review of EPA's reasonable progress rule makes clear that additional emission reductions at several Texas EGUs would be cost effective and would result in significant pollution reductions and corresponding visibility improvements at affected Class I areas. See Earthjustice, NPCA, and Sierra Club's Comments on the Proposed Rule for Texas and Oklahoma (Apr. 20, 2015), Docket ID No. EPA-R06-OAR-2014-0754-0067, attached as Exhibit 20; the technical reasonable progress analysis of Vicki Stamper, and EPA's Technical Support documents in EPA Docket No. EPA–R06–OAR–2014–0754. For example, as EPA found in its reasonable progress and BART analyses (and as the Conservation Organizations demonstrated in the attached comments), additional emission reductions and associated SO_2 control retrofits or upgrades at many of Texas's largest and highest-polluting coal-burning EGUs would be well within the range of costs that EPA and states have found reasonable.

Figure 3. Reasonable Progress FIP Cost-Effectiveness Versus Other Reasonable Progress Determinations



Similarly, although not an explicit statutory factor, EPA's reasonable progress rule would result in significant visibility benefits both individually and cumulatively across several Class I areas. In fact, EPA's projected visibility benefits would make greater progress toward natural visibility than many other state plans.

Figure 4. Reasonable Progress FIP Visibility Benefits Versus Other States



EPA's proposed source-specific BART determinations were the minimum set of controls necessary for Texas to meet the BART requirements of the Regional Haze Rule. But implementing a BART rule does not obviate EPA's obligation to go beyond BART and to require additional "emission limits . . . and other measures as may be necessary to make reasonable progress toward meeting the national goal." 42 USC § 7491(b)(2). This is especially true where, as here, EPA proposes to abandon and replace its previous source-specific BART proposal with a trading rule that fails to require any emission reductions.

Even if EPA adopts the Trading Rule in lieu of its previously proposed source-specific BART FIP, the agency must still evaluate and adopt measures to ensure reasonable progress and protect air quality in affected Texas and out-of-state Class I national parks and wilderness areas. As the figures above make clear, there are technically-feasibly and cost-effective emission limits and measures that—with or without source-specific BART—are necessary to ensure reasonable progress toward the national visibility goal. In particular, as EPA found in its reasonable progress rulemaking, there are cost-effective controls available for 14 units located at eight coal-fired power

plants that would significantly improve visibility at Class I areas across the central United States. If EPA abandons its source-specific BART Rule, EPA's already-finalized and reasonable progress FIP represents a minimum floor for remedying the deficiencies in both Texas and Oklahoma's regional haze plans. The progress goals in those SIPs are unreasonable, at a minimum, in light of the agency's recognition of available, cost-effective measures at additional facilities, which would achieve a greater rate of progress toward the 2064 natural visibility goal at Wichita Mountains, Big Bend, and Guadalupe Mountains.

EPA's 2016 reasonable progress FIP is consistent with the Clean Air Act, the Regional Haze Rule, and reasonable progress plans that other states and EPA have finalized. The reasonable progress FIP is amply supported by a voluminous record and detailed and technically justified cost and visibility analyses that comply with the requirements of the Regional Haze Rule.

Moreover, EPA's 2016 FIP ensures greater reasonable progress toward natural visibility than Texas' plan, which relied entirely on CAIR emission reductions to satisfy its reasonable progress obligations. Indeed, in contrast to Texas' plan, the reasonable progress FIP would reduce 230,000 tons of sulfur dioxide annually, 81 FR at 298, 305, and would improve visibility in nineteen national parks and wilderness areas in seven different states, including Texas and Oklahoma. Moreover, EPA's plan would achieve natural visibility at Guadalupe Mountains approximately 25 years sooner and at Big Bend approximately 30 years sooner than Texas's CAIR-as-reasonable-progress SIP. *Id.* at 323.

EPA has not questioned the validity of, or identified any errors in, any of its individual, source-specific reasonable progress determinations in the 2016 FIP. Nor has EPA attempted to demonstrate that the its proposed intrastate trading scheme would achieve greater reasonable progress than its 2016 reasonable progress rule. Consequently, EPA cannot simply replace its reasonable progress FIP with reliance on the proposed trading scheme.

Even if EPA's Trading Rule achieved some reductions from BART-eligible Texas EGUs, the program, by its express terms, does not evaluate reductions for an appreciable portion of Texas's SO_2 emissions. 83 FR at 43591 ("Covered sources under the BART alternative in this FIP represent 89% of all from all Texas EGUs"). Moreover, as discussed previously, EPA actually allocated more emission credits to many sources than they would typically and collectively be expected to use. EPA must evaluate those units for additional controls or reductions under reasonable progress.

Finally, even taking into consideration EPA's 2016 reasonable progress FIP and the subsequent BART proposal—both of which show that additional controls are reasonable and cost-effective for many coal-burning Texas EGUs—EPA has never conducted any kind of control analyses for a number of Texas's largest sources coal-burning power plants for possible SO_2 control upgrades, including Oklaunion, Pirkey, Oak Grove Units 1 and 2, Twin Oaks Units 1 and 2, J.K. Spruce, Gibbons Creek, and Sandy Creek. This suggests that there may be other potentially significant SO_2 reductions available to ensure reasonable progress. In sum, a rational, four-factor

reasonable progress—such as the 2016 FIP rulemaking, which is supported by a voluminous record—makes clear that additional emission reductions from Texas EGUs are both cost effective and necessary to improve visibility at Texas and Oklahoma Class I areas.

Response: As discussed in Section III.A.2 of the Federal Register notice for this final action, we are not finalizing a position that the Texas SO_2 Trading Program is also designed to be part of the long-term strategy needed to meet reasonable progress requirements of the Regional Haze Rule at this time. While the program will contribute to reasonable progress toward meeting the visibility goals of the regional haze program through enforceable reductions of visibility-impairing SO_2 emissions from baseline emission levels, the necessary analysis, and potentially, emission controls, to fully address reasonable progress for Texas will take place in a separate, future action.

Comment: The Texas SO_2 Trading Program finalized in the October 2017 final rule is part of the long-term strategy for Texas to meet its reasonable progress obligations. We received comments from AEP, NRG Texas, SPS, and Vistra agreeing that the SO_2 trading program finalized in the October 2017 final rule is part of the long-term strategy for Texas to meet its reasonable progress obligations. SPS also states that emissions levels from the SO_2 trading program are expected to be lower than the emission levels on which other states relied to set their reasonable progress goals.

We received a comment from SPS stating that the EPA has recognized in the Reasonable Progress Guidance that emissions cap-and-trade programs may be considered as reasonable progress controls. SPS comments that the reasonable progress goals that EPA established in the Reasonable Progress FIP for the first planning period have already been met despite the absence of controls and argues that recent monitoring data in Class I areas demonstrates that further SO_2 controls are unnecessary. SPS requests that EPA commence a rulemaking to repeal the Reasonable Progress FIP that is currently stayed by the Fifth Circuit, find that the rule is not necessary to meet the reasonable progress goals for the first planning period, and approve the Texas SIP's reasonable progress determination.

We received a comment from Vistra stating that based on the SO_2 trading program and other aspects of the EPA's October 2017 BART FIP, EPA should approve Texas's 2009 Regional Haze SIP (now on remand to EPA from the U.S. Court of Appeals for the Fifth Circuit) as fully meeting the reasonable progress and long-term strategy requirements for Texas. SPS argues that as EPA has found on many occasions, CSAPR-level reductions are generally all that is needed for these sources to make reasonable progress in the first planning period.

Response: As discussed in Section III.A.2 of the Federal Register notice for this final action, we are not finalizing a position that the Texas SO_2 Trading Program is also designed to be part of the long-term strategy needed to meet reasonable progress requirements of the Regional Haze Rule at this time. While the program will contribute to reasonable progress toward meeting the visibility goals of the regional haze program through enforceable reductions of visibility-

impairing SO_2 emissions from baseline emission levels, the necessary analysis, and potentially, emission controls, to fully address reasonable progress for Texas will take place in a separate, future action.

Comment: EPA must comply with the Clean Air Act's procedural and substantive requirements, including conducting a four-factor reasonable progress analysis and allowing for public comment, before issuing a replacement plan to satisfy the reasonable progress requirements. EPA hints that it may find that the Trading Rule also satisfies distinct reasonable progress requirements, but does so without conducting additional analysis or expressly stating that it is noticing and taking comment on the Trading Rule as a rulemaking that could satisfy the Regional Haze Rule's reasonable progress provisions. Under the Clean Air Act, a FIP cannot be *adopted or revised* without following public notice and comment procedures set forth in 42 USC § 7607(d). *See* 42 USC § 7607(d)(1)(B), (d)(2)-(6). Among other requirements, EPA must first publish a proposed rule or revision in the Federal Register that is accompanied by a statement of basis and purpose and specifies a comment period. *Id.* § 7607(d)(3). The statement of basis and purpose must include a summary of the factual data on which the proposed rule is based, the methodology used in obtaining and analyzing the data, and the major legal interpretations and policy considerations underlying the proposed rule. *Id.* EPA must allow any person to submit comments, and in addition, shall give interested persons an opportunity for the oral presentation of data, views, or arguments. *Id.* § 7607(d)(5). These and other public participation requirements in §7607(d) build on those in the Administrative Procedure Act and are even more protective of notice and comments rights.

In December 2015, EPA issued a final rule approving in part and disapproving in part Texas's regional haze plan, including provisions of the state's reasonable progress analysis, as well as portions of Oklahoma's "interconnected" plan. *See* 81 FR 296. As required by the Clean Air Act, 42 USC § 7410(c)(1), EPA issued a partial FIP to correct the deficiencies in Texas's submittal. 81 FR at 297. In July 2016, however, the Fifth Circuit stayed EPA's disapproval and promulgation of the FIP addressing the reasonable progress portions of Texas's Regional Haze plan. *See Texas*, 829 F.3d 405. The Fifth Circuit subsequently granted EPA's motion requesting a voluntary remand of the rule so that the agency could reconsider its reasonable progress determinations, which, as EPA has recognized, are separate and independent from the BART requirements at issue here. *See* 83 FR at 43595 (noting "outstanding obligations with respect to reasonable progress that resulted from the Fifth Circuit's remand of our reasonable progress FIP").

Although EPA's reasonable progress FIP has been stayed and remanded, EPA must comply with the Clean Air Act's procedural and substantive requirements before issuing a replacement plan to satisfy the reasonable progress requirements. In particular, EPA must conduct the four-factor reasonable progress analysis outlined above and must then publish any proposed reasonable progress rule revision and allow for public comment. EPA must also include a summary of the factual data on which the proposed rule is based, the methodology used in obtaining and analyzing the data, and the major legal interpretations and policy considerations underlying the proposed rule as well as the rationale behind any departure from prior rulemakings or interpretations. For these reasons, EPA cannot simply rely on its Trading Rule to satisfy reasonable progress but must

instead consider the four statutory reasonable progress factors and require reasonable emissions reductions making clear what it is proposing as a rulemaking and engage in additional notice and comment before issuing any such rule.

Response: EPA acknowledges that it cannot, without further analysis, conclude that the Texas intrastate trading program fully resolves reasonable progress obligations for Texas for the first implementation period of the Regional Haze Rule. However, the Texas program is also designed to secure reductions of visibility impairing SO_2 emissions that contribute to improvements in visibility from the baseline period for the first planning period and are permanent and enforceable as part of the long-term strategy for the State of Texas. Thus, while a four-factor reasonable progress analysis is beyond the scope of this action and the Texas SO_2 Trading Program, the trading program contributes toward reductions in visibility pollutants relevant to making reasonable progress toward the goal of natural visibility conditions at Texas' and downwind Class I areas.

7. Venue

Comment: EPA must make a formal determination that the Trading Rule is based on a determination of nationwide scope and effect. If EPA retains the intrastate trading program, the agency must publish a finding that the Trading Rule "is based on a determination of nationwide scope or effect." 42 USC § 7607(b)(1). Such a finding is necessary because the Trading Rule is plainly based on such a determination, and should be reviewed in the United States Court of Appeals for the District of Columbia.

EPA must make a formal determination that the Trading Rule is based on a determination of nationwide scope and effect. First, in comparing the Trading Rule to the CSAPR Better-than-BART Rule to purportedly satisfy the requirements of 40 CFR § 51.308(e), EPA has reinterpreted an established and nationally applicable law. Second, EPA's unlawful interpretation of 40 CFR § 51.308(e) amounts to a revision of a nationally applicable regulation. Therefore, EPA has an obligation to publish a finding in the Federal Register that the Trading Rule is based on a determination of nationwide scope or effect, along with a statement that any challenge to the Trading Rule should be filed in the D.C. Circuit. In this comment, Sierra Club does not challenge CSAPR itself or EPA's Better-than-BART determination. Instead, Sierra Club notes only that the Trading Rule is, in fact, based on those rules, which are nationally applicable and determinations of nationwide scope and effect. However, Sierra Club disputes EPA's interpretation of the Better-than-BART determination as applied to this intrastate, non-CSPAR Trading Rule.

Comment: EPA has unlawfully reinterpreted 40 CFR § 51.308(e) in comparing the Trading Rule to the Better-than-BART Rule to assess whether the Trading Rule makes greater reasonable progress than BART. Under the Clean Air Act and EPA's implementing regulations, a state may adopt an emissions trading program or an alternative measure only if a state can demonstrate that

the alternative program makes greater reasonable progress than would be achieved through the installation and operation of BART. 40 CFR § 51.308(e)(2). In support of such a proposal, the state must submit a demonstration that its proposed trading program would "achieve greater reasonable progress than would have resulted from the installation and operation of BART at all sources subject to BART in the State" based on a source-specific or, in limited cases, a category-wide determination of BART for each source. *Id.* § 51.308(e)(2)(i)(C). In other words, a proposed BART alternative must be evaluated in comparison with BART, not another BART alternative.

However, in proposing the Trading Rule, EPA has effectively reinterpreted 40 CFR § 51.308(e)(2) to allow for a proposed BART alternative to be justified through a comparison to another BART alternative, rather than BART. This unlawful reinterpretation of an established regulation is not only nationally applicable, but would also have nationwide scope and effect, as EPA and states could take the same approach in other states of comparing one BART alternative to another in conflict with the plain language of 40 CFR § 51.308(e)(2). If EPA is proposing a new interpretation of the BART alternative regulations such that a BART alternative can be approved if it makes greater reasonable progress than another BART alternative, rather than the current language which requires finding that a BART alternative makes greater reasonable progress than BART, EPA must clarify its proposal and provide a rationale for interpreting the regulations contrary to their plain meaning.

If it is now EPA's position that a BART alternative can be lawfully compared to another BART alternative, then EPA must justify this revision to the rule through the rulemaking process. Under the Clean Air Act, EPA must follow rulemaking procedures for any promulgation or *revision* of regulations relating to the prevention of significant deterioration of air quality and protection of visibility. 42 USC § 7607(d)(1)(J) (*emphasis added*). As part of this process, EPA must publish a notice of proposed rulemaking in the Federal Register to allow interested persons an opportunity to comment on the proposed amendment. 42 USC § 7607(d)(3). This proposed rulemaking would have nationwide scope and effect, as it would apply to all states. Therefore, the proper venue for any litigation related to this proposed rulemaking, including the need for EPA to publish a notice of proposed rulemaking, would be the D.C. Circuit.

Even if EPA does not publish a finding that the Trading Rule is based on a determination of nationwide scope or effect (and does not withdraw the Trading Rule), subsequent legal challenges will still be properly venued in the D.C. Circuit pursuant to 42 USC § 7607(b)(1). While the EPA Administrator has authority to publish a finding that an action is based on a determination of nationwide scope or effect, this authority is not unreviewable. *Nat'l Envtl. Dev. Ass'n Clean Air Project v. EPA*, 891 F.3d 1041, 1053 (D.C. Cir. 2018) (Silberman, J., concurring). Similarly, a failure of EPA to make such a determination in "an appropriate case could also be challenged by a party with standing . . . so long as it had first petitioned EPA to publish the necessary finding." *Id.* Nonetheless, EPA should make an explicit finding of nationwide scope and effect to avoid the delay and expense of potential venue disputes.

Response: To the extent commenter is asserting that this action is "nationally applicable" for purposes of section 307(b), that claim is clearly incorrect. As the D.C. Circuit has recently explained, "[t]he court need look only to the face of the agency action, not its practical effects, to determine whether an action is nationally applicable."[133] On its face, this action is locally applicable because it applies in only a single state, Texas. This action has immediate, legal effect only for certain sources within Texas. Furthermore, EPA is not adopting a new interpretation of its regulations at 40 CFR 51.308(e)(2); nor is it correct to characterize EPA's application of those regulations as a revision necessitating national rulemaking.

EPA also disagrees that this action must be challenged in the D.C. Circuit under the "nationwide scope or effect" portion of the venue provision of CAA section 307(b). In general under section 307(b), an EPA action "which is locally or regionally applicable" may be filed "*only* in the United States Court of Appeals" covering that area.[134] The only exception to this mandate is where the Administrator expressly finds that the locally or regionally applicable action is based on a determination of nationwide scope or effect and publishes such a finding. The requirement that the Administrator find and publish that an otherwise locally or regionally applicable action is based on a determination of nationwide scope or effect is an express statutory requirement for application of this venue exception; this exception is not being invoked by EPA in this action. EPA has made no finding in this action and is not publishing any finding that this action is based on a determination of nationwide scope or effect. The absence of either such a finding or publication of such a finding makes this venue exception in CAA section 307(b) inapplicable. Absent an express statement – and publication – that such a finding has been made, thus invoking the venue exception, there can be no application of that exception.[135] CAA section 307 expressly provides the Agency full discretion to make its own determination of whether to invoke the exception in the Congressionally-dictated venue provision.[136]

Even assuming that a court could review the lack of such a finding, and lack of publication of such a finding, under the arbitrary and capricious standard,[137] the EPA's decision not to do so is not unreasonable in this case. As an initial matter, this action does not apply to any sources other than those covered by the program in the State of Texas. By the same token, the applicability of the action does not span multiple federal judicial circuits. Further, EPA is not proposing or adopting a new or different interpretation of its regulations at 40 CFR 51.308(e)(2), nor is it correct to characterize EPA's application of those regulations as a revision necessitating national rulemaking. The commenter's characterization of EPA's analysis as conducting a novel comparison of the

---

[133] *Sierra Club v. EPA*, 926 F.3d 844, 849 (D.C. Cir. 2019) (citing *Dalton Trucking*, 808 F.3d 875, 881 (D.C. Cir. 2015) and *Am. Road & Transp. Builders Ass'n v. EPA*, 705 F.3d 453, 456 (D.C. Cir. 2013)).

[134] *See* 42 U.S.C. 7607(b)(1) (emphasis added).

[135] *See, e.g.*, *Lion Oil v. EPA*, 792 F.3d 978, 984 n.1 (8th Cir. 2015) (even where EPA, unlike here, made the necessary finding, the court found no need to decide application of the venue exception absent publication of that finding); *Texas v. EPA*, 829 F.3d 405, 419 (5th Cir. 2016) ("This finding is an independent, post hoc, conclusion by the agency about the nature of the determinations; the finding is not, itself, the determination."). *See also Dalton Trucking v. EPA*, 808 F.3d 875 (D.C. Cir. 2015).

[136] *See, e.g., Texas v. EPA*, 829 F.3d at 419–20 (the venue exception "gives the Administrator the *discretion* to move venue to the D.C. Circuit by publishing a finding declaring the *Administrator's belief* that the action is based on a determination of nationwide scope or effect.") (emphasis added).

[137] *Cf. Sierra Club v. EPA*, 926 F.3d 844, 850 (D.C. Cir. 2019) (declining to resolve whether failure to make a finding is reviewable but concluding the absence of such a finding was not arbitrary and capricious under the facts of the case).

Texas program to CSAPR as a BART alternative is incorrect. In the final action, EPA is making no such interpretation that 51.308(e)(2) authorizes a comparison between two BART alternatives. Rather, in this final action, EPA has determined it is acceptable to continue to rely on the CSAPR-Better-than-BART analysis (which included Texas) under the unique, state-specific circumstances presented here: that the intrastate trading program in Texas achieves the same or better emissions outcomes as the CSAPR program would have. The CSAPR Better-than-BART analysis on which EPA is relying uses presumptive BART limits—in compliance with 51.308(e)(2)(i)(C)—to demonstrate greater reasonable progress.

Further, the *application* of the nationally applicable 2012 and 2017 CSAPR findings in Texas is a "locally or regionally applicable" action; that application does not in itself make the lack of EPA invoking the exception unreasonable. While the 2012 finding was appropriately reviewed (and upheld) in the D.C. Circuit, and the 2017 finding is currently being reviewed in the D.C. Circuit, *see NPCA v. EPA*, 17-1253 (D.C. Cir.), the *application* of those findings in Texas is merely one aspect of this "locally or regionally applicable" action. In any future action that may raise similar circumstances as Texas (and EPA is aware of no such situation at this time), EPA's determination whether to promulgate an intrastate trading program as a BART alternative would be based on a record and analysis specific to the sources in that state at that time. EPA has announced no national policy or interpretation that the decisions in this action are, or would necessarily be, applicable in any future action. Thus, EPA has not reinterpreted or revised its Regional Haze Rule regulations in this action, and it is inaccurate to characterize the mere application of regulations in a case-specific circumstance as a revision of those regulations. Under such circumstances, EPA's lack of a finding or publication of such a finding here is hardly unreasonable.

Finally, we note that EPA did not make a finding in the October 17, 2017 final action originally promulgating the Texas SO_2 Trading Program that such action was based on a determination of nationwide scope or effect. This action merely affirms the 2017 action with certain amendments. Petitioners seeking judicial review of that action correctly filed for review in the Fifth Circuit, *see NPCA v. EPA*, No. 17-60828 (5th Cir.), and that case is being held in abeyance pending the completion of this action. No petitions for review of the original FIP action were filed in the D.C. Circuit, nor would it have been appropriate to do so.

8. Other

Comment: The requirement of source-specific pollution controls would not threaten grid reliability. When EPA imposed source-specific emission limits for Texas power generators in the past, industry and the State of Texas warned that if coal-fired power plants had to comply with these limits, some oper[a]tors would be forced to retire and the reliability of Texans' electricity supply would suffer as a result. These claims have now been definitively refuted by events that have unfolded in the past several years. By contrast, EPA's determination that the electric grid was robust enough to accommodate coal plant retirements in favor of cleaner energy (See 81 FR at 345) has proven correct. Despite the retirement of over 4 gigawatts of coal-fired power plants in early 2018, the Texas electricity grid has not experienced reliability problems, nor have prices been impacted. Given this history, EPA should be suspicious of any claims concerning grid failures,

rolling blackouts, or higher prices that would purportedly occur if EPA establishes source-specific BART on coal-fired power plants or other sources, as is legally required.

Several of the plants that would have been subject to source-specific limits in earlier iterations of the Texas regional haze rule retired without source-specific emission limits ever going into effect. Luminant, the plants' owner, pointed to competition in the energy marketplace as the driver for the retirement decisions. Further, upon Luminant's notification of its intent to retire Monticello, Big Brown, and Sandow, ERCOT evaluated the reliability impacts of retiring plants and found that none of the generating units was "required to support ERCOT transmission system reliability." The ERCOT grid has not encountered any reliability issues following these retirements of Luminant plants and has adequate resources to meet Texas's needs. This is despite the summer of 2018 being one of the hottest on record, and new records set for peak electricity demand. Further rebutting claims that preventing the retirement of BART subject coal-fired power plants is essential to a reliable grid, ERCOT's latest study of energy capacity, demand, and reserves predicts healthy reserve margins through the endpoint of the study in 2023, due in large part to large additions of wind and solar energy.

In sum, even if grid reliability were a relevant consideration under BART (which Sierra Club does not concede it is), it is clear that EPA must not accept at face value industry's claims that requiring plants to meet the emission limits required by source-specific BART would threaten grid reliability, especially given the overwhelming evidence that it would not.

Response: EPA is not basing its BART-alternative program in Texas on any determination or finding respecting whether source-specific BART controls could threaten grid reliability. We agree with the commenter that grid-reliability is not a relevant consideration for this action. However, we do not agree that source-specific controls are the only option to satisfy BART in Texas. As discussed elsewhere, the intrastate trading rule, in conjunction with Texas sources' participation in the CSAPR trading program for ozone season NO_X, satisfy the regulatory requirements as BART alternatives for SO_2 and NO_X.

Comment: We received general adverse comments during both public hearings (September 2018 and December 2019). The full text of the comments received during those public hearings can be found in the docket for this action.

Response: We have reviewed all comments received regarding the August 2018 proposal to affirm the October 2017 FIP and the November 2019 notice supplementing that proposal. General objections were taken into consideration in this final action.

9. Assurance Provisions and the Variability Limit

Comment: We incorporate by reference and are attaching comments and expert reports submitted by Earthjustice, NPCA, and Sierra Club regarding prior actions taken in the development of the Texas regional haze plan. Docket ID No. EPA-R06-OAR-2016-0611.

Response: Insofar as commenter has explained the application and the relevance of incorporated comments to this final action, we respond to them elsewhere in this document. All comments and other materials submitted on actions prior to our August 2018 proposal to affirm our October 2017 final FIP are beyond the scope of this final action unless the application and relevance of those comments or materials to this specific action have been explained with reasonable specificity

Comment: EPA's proposed assurance provisions are arbitrary and capricious. CSAPR, on which EPA purports to have based the Texas SO_2 trading program, incorporated "assurance levels" that were designed to account for year-to-year variability levels in state EGU emissions. Individual state budgets represent each state's projected emissions after that state's share of emissions resulting in nonattainment and interference with maintenance are eliminated. However, EPA concluded that these state budgets could still vary from year-to-year due to normal fluctuations in electricity demand, weather, economic considerations, etc. To address this issue, EPA added "variability limits" to each state's budget, which provide additional headroom in the states' budgets. These variability limits were based on the maximum historical percentage coal usage (heat input) variability during 2000-2010 experienced by any CSAPR state. The state budget plus the variability limit equals the ''state assurance level.'' Under *CSAPR, states* are required to hold allowances for all of their emissions, including their variability limits, but those allowances are allocated only on the basis of the smaller state budgets.

Comment: EPA's inclusion of a variability limit is flawed. In its continued attempt to justify its abandonment of its January 2017 Texas BART proposal in favor of a far less effective intrastate SO_2 trading program, EPA now proposes to add an assurance limit to the program. EPA states that certain comments led it to this position. These include comments that EPA's Texas SO_2 trading program would (1) not provide any regulatory pressure on EGUs to reduce their emissions and would actually allow emissions to increase, and (2) would undermine the stringency of the program based on the availability of supplemental allowances, the issuance of allocations to already-retired units, the general method of allocating allowances, and the availability of unlimited allowance banking.

To address these concerns, EPA now proposes to add an assurance level using the same methodology the agency used in CSAPR. EPA claims, "to the extent that commenters claimed the program would be inadequately stringent due to the allowance allocation methodology, including allocations to retired units, or due to the Supplemental Allowance Pool or allowance banking, these concerns are effectively rendered moot by the addition of the assurance level." We disagree. The fact that EPA would now impose a cap on its Texas SO_2 trading program does not mitigate—let alone moot—the errors we pointed out in our original comments concerning EPA's rules governing its Supplemental Allowance Pool, banking, and related issues. Were that the case, EPA could

simply promulgate any trading rule it desired, using any reasoning or allocation methodology, as long as the end result equaled some desired total emissions goal.

EPA later states, "Allocations to retired units and the availability of banking are important to ensure market stability, avoid perverse incentives, and potentially aid in sources' operational planning." To support this assertion, EPA cites to several sections of its CSAPR Update Final Rule. However, none of these references provide any rationale or support for including in the Texas SO_2 Trading Program (and allocating emission credits) to EGUs that have already retired or, in some cases, relinquished their operating permits. In fact, in the cited portions of the CSAPR Update, the only reference to retired units is in the context of units that are currently operating and may retire in the future. Allocating allowances to already retired units only serves to inflate the SO_2 budget, thereby reducing the value of the allowances, which disincentivizes SO_2 reduction. Moreover, the proposal arbitrarily creates a windfall to operators that have independently chosen to cease operations or relinquish their permit rights to emit any pollution. Giving permanently-retired sources and their operators a free pass to emit more haze-causing pollution than they are legally allowed to emit under the Clean Air Act cannot, in any meaningful sense of the term, comply with the Regional Haze Rule's requirement that any trading program "achieve greater reasonable progress" than source- specific BART. EPA's attempts to further justify its Texas Trading Rule by linking it to the CSAPR Better-than-BART demonstration only serves to introduce additional logic flaws into an already highly flawed rule.

Response: As an initial matter, this action does not reopen any aspect of the CSAPR regulations. However, in order to facilitate our response to comments on the proposed amendments to the Texas SO_2 Trading Program, we first respond to the commenter's statements concerning the CSAPR programs as necessary to correct errors in the commenter's statements that may also implicate the commenter's statements concerning the Texas SO_2 Trading Program. Contrary to the commenter's statements, the CSAPR variability limits do not "provide headroom in" or otherwise alter the CSAPR state budgets, which are fixed amounts for all years from 2017 forward. Rather, a state's CSAPR variability limit is a defined increment by which the state's total emissions in a given year may exceed the underlying fixed CSAPR state budget before any incremental emissions trigger requirements to surrender more than one allowance per ton of emissions. Also, the amounts of the CSAPR variability limits were determined based on an analysis of historical variability in states' consumption of all fossil fuels for electricity generation, not states' consumption of only coal for electricity generation.

Turning to the substance of these comments, we continue to believe that the addition of assurance provisions to the Texas SO_2 Trading Program will provide further support for our determination that the Texas SO_2 Trading Program is at least as stringent as the CSAPR SO_2 trading program as applied to Texas and for that reason is sufficiently stringent to meet the requirements for a BART alternative under 40 CFR 51.308(e)(2). When promulgating the Texas SO_2 Trading Program, we found that the average annual emissions authorized by the program's design would be similar to the emissions authorized under CSAPR and well below the 317,100 tons-per-year benchmark established by the sensitivity analysis performed in the 2012 "CSAPR Better-than-BART" rulemaking. In the supplemental proposal for this action, in response to comments raising concerns that the program as originally promulgated in fact might not constrain

emissions in individual years as effectively as CSAPR, we reiterated these conclusions regarding the program's average annual emissions but also acknowledged that the program's design might not constrain emissions in individual years as effectively as CSAPR because of the lack of provisions comparable to CSAPR's "assurance provisions." We therefore proposed and in this action are now finalizing the addition of assurance provisions to the Texas SO_2 Trading Program in order to further ensure that the program's design is at least as stringent as the CSAPR SO_2 program as applied to Texas, not only on an average annual basis but also in individual years.

The commenter suggests that even where revisions to a trading program have been specifically designed to achieve a desired total emissions goal – in this instance, ensuring that statewide emissions levels in individual years do not exceed the 317,100 tons-per-year benchmark – the ability of the revisions to in fact achieve that goal is not the relevant criterion by which we should evaluate the appropriateness of the revisions, and that we should instead evaluate the revisions (and the program as a whole) based on whether or not the revised program also addresses other concerns raised by the commenter. We disagree with this suggestion. In noting the list of program design features that the commenter considers problematic, we did not endorse the full set of concerns that the commenter asserts these design features raise. Rather, we acknowledged the specific concern as to whether the program is or is not at least as stringent in individual years as the CSAPR SO_2 trading program, and we proposed amendments to address that specific concern. While the commenter asserts that the identified design features raise additional concerns and believes that we should evaluate the program according to different criteria, we do not agree. We have addressed the commenter's assertions regarding the identified design features and additional evaluation criteria in response to other comments. In general, the commenter provides no cogent explanation why the addition of an assurance level (which effectively functions as a "cap" as their own language concedes) would not ensure emissions performance of the program on an annual basis below that level. Nor has the commenter explained why, if that is the case, the other objections they raise with respect to allocations or banking of allowances are of relevance to EPA's determination that the program achieves the necessary level of stringency for a BART alternative under 51.308(e)(2).

The commenter's criticism of the discussion in the supplemental proposal concerning our general rationale for not immediately discontinuing allocations to retired units has no relevance to the proposed addition of assurance provisions to the Texas SO_2 Trading Program or any of the other proposed amendments in the supplemental proposal. We have addressed the commenter's assertions regarding the permissibility of allocating allowances to retired units in response to other comments.

Comment: EPA's calculation of its proposed variability limit uses out-of-date data, rather than the most recent data as used in CSAPR. In promulgating CSAPR, EPA's original stated reasoning for the need for a variability limit was to account for "weather, economic activity, the portion of electric generation that is fossil fuel fired, and the length and number of outages at power generation units, which vary over time."

In calculating this variability in its 2011 final rule, EPA chose the most recent heat input data that was available at the time: 2000-2010. These heat inputs were totaled for all participating units for each state. EPA then performed basic statistical analyses to calculate the largest variability

(18% for the SO_2 program) for any state and assumed that value as the variability for all states. In its supplemental proposal for its Texas SO_2 trading program, EPA simply adopts the variability for Texas (7%) that was calculated in the CSAPR rulemaking, instead of updating it to account for more recent data and the units that are actually participating in the Texas SO_2 trading program. The CSAPR heat input data from 2000-2010 are now eight years out of date. Thus, this data set is no longer suitable for its originally intended purpose—to account for variations in weather, economic activity, etc., that influence electricity generation.

Even if EPA's Texas Trading Rule were lawful (which it is not, for the reasons set out in Conservation Organizations' October 2018 comments), EPA must, at a minimum, update the technical analysis underlying its variability limits, as the agency has done in other contexts. In its recent update to CSAPR, for example, EPA relied on updated Integrated Planning Model data to analyze the impact of the updated Transport Rule on the U.S. electric power sector, as well as its preliminary transport modeling data for the 2015 ozone NAAQS. EPA similarly conducted updated Power Sector Modeling using a revised Integrated Planning Modeling Platform in the agency's roll back of the Clean Power Plan, also known as the Affordable Clean Energy Rule. In so doing, EPA recognized the many changes to the distribution and magnitude of electric sector emissions, including the significant expansion of renewable energy generation resources, recent EGU retirements and control additions, changes in the cost and efficacy of pollution control technologies, reductions in electricity demand, electric system transmission changes, and persistently low natural gas prices. In the Supplemental Texas Trading Rule, EPA arbitrarily fails to acknowledge—let alone address—the numerous changes to the electric sector since the agency adopted its CSAPR variability limits in 2011.

In addition, the obsoleteness of the heat input data aside, given the EGU retirements that have occurred since 2010, that data set is much different than what would be calculated based on the units that would actually participate in EPA's Texas SO_2 trading program, as illustrated by the following table:

Table 7. Comparison of Historic Heat Inputs

Year	Original CSAPR Heat Inputs (million MMBtu)	Heat Inputs for All Units in TX SO_2 Trading Program (million MMBtu)	Heat Inputs for All Units in TX SO_2 Trading Program Minus Retirements (million MMBtu)
2000	2,581.8	1,382.7	1,054.0
2001	2,550.6	1,315.7	988.7
2002	2,778.0	1,331.9	1,004.9
2003	2,866.6	1,370.5	1,027.7
2004	2,897.2	1,347.5	1,005.1
2005	3,034.3	1,371.5	1,032.0
2006	3,050.9	1,342.2	989.5
2007	3,100.2	1,393.0	1,042.9

2008	3,103.7	1,350.4	1,025.8
2009	2,978.1	1,269.2	943.5
2010	3,074.1	1,269.3	962.2

In the above table, the second column reproduces the heat inputs for Texas units that EPA expected to be covered by CSAPR, and that were used in EPA's original calculation of variability for CSAPR. The third column lists the heat inputs for only the units actually included in EPA's Texas SO_2 Trading Program (including retired units that are unlawfully and unreasonably provided emission allowances under that program). The fourth column is the same as the third, but deletes the heat inputs from retired units. The magnitudes of the data sets indicate that despite being of the same years, they are composed of different units. In fact, the heat input data set composed of only the unretired units that would actually participate in the Texas SO_2 Trading Program is approximately 1/3 the size of the data set that EPA is basing its variability analysis on. In its continued strained attempt to justify its inadequate Texas SO_2 Trading Program by comparison to CSAPR, EPA ignores its earlier decision to base its variability calculation on only the units that actually participate in the trading program.

Response: In the supplemental proposal, we proposed to adopt a variability limit of 7% for the Texas SO_2 Trading Program, where the proposed limit was calculated based on the annual heat input values for Texas in the same overall data set used to calculate the analogous variability limit of 18% for the CSAPR SO_2 program. In most respects, the Texas SO_2 Trading Program has been designed to replicate relevant aspects of the CSAPR SO_2 program. We do not dispute that the Texas electricity sector has evolved in the years since the CSAPR rulemaking and we agree with the general principle that the most current data of sufficient quality and representativeness should be used when conducting rulemaking activities. However, we do not believe that acceptance of the general principle in favor of using more recent data when available necessarily requires that the principle be applied to every detail of a rulemaking, such as this one, that is being conducted with an overall purpose of closely replicating the structure of a previous rulemaking.

Nevertheless, in order to assess the potential impacts of using more recent data instead of the CSAPR rulemaking data set specifically for purposes of establishing the amount of the variability limit for the Texas SO_2 Trading Program, we have calculated what the variability limit would be if it were calculated using the more recent data set suggested by the commenter. In the following comment, the commenter states that this calculation would result in a variability limit of 2%, but as discussed in greater detail in our response to that comment, the commenter did not actually use the more recent data set and furthermore made a material error in the calculation procedure. When the calculation procedure is applied to the more recent data set and the procedural error is corrected, the result would be a higher variability limit than we proposed – specifically, 12% instead of 7%. Because neither this commenter nor any other commenter advocates using a variability limit higher than 7%, and some other commenters specifically support use of the variability limit and resulting assurance level calculated based on values for Texas in the data set used in the CSAPR rulemaking, we do not find it necessary to use an updated data set in this instance.

Comment: Any variability limit added to the Texas SO_2 Trading Program should be 2% rather than the 7% proposed by EPA. We recalculated what a Texas SO_2 Trading Program variability limit would be if it were based on EPA's original methodology used in CSAPR. As EPA did in CSAPR, we used up-to-date data and included *only* those units that are expected to be covered by the program. Below are the heat inputs for those units that are expected to participate in the Texas SO_2 trading program:

Table 8. Updated Texas SO_2 Trading Program Heat Inputs Used in EPA Variability Analyses

Year	Heat Inputs for All Units in TX SO_2 Trading Program Minus Retirements (million MMBtu)
2008	1,025.8
2009	943.5
2010	962.2

2011	947.7
2012	843.0
2013	892.6
2014	848.4
2015	720.2
2016	692.2
2017	771.0
2018	788.7

We then used the methodology EPA used in CSAPR to calculate a variability. As EPA indicates in its Technical Support Document, for each state's data, it performed the following steps:

1. For each state, EPA fit the yearly (2000-2010) heat input data to a linear equation in the form y= mx + b.
2. EPA calculated the difference between the actual heat input and that predicted by the linear equation.
3. EPA calculated the standard deviation of the differences in Step 2.
4. EPA calculated a 95% confidence level of those deviations.
5. EPA calculated the variability as a percentage of the 95% confidence interval to the average heat input.

In replicating EPA's 95% confidence interval calculation as prerequisite to updating it, we uncovered an apparent error. We were unable to locate EPA's original spreadsheet used in constructing the tables in the TSD for the final Transport Rule, but we were able to back-calculate EPA's calculations. The Excel Function for calculating a confidence interval, which presumably EPA used, is:

CONFIDENCE (alpha,standard_dev,size)

Microsoft presents the following notes regarding the use of this function:

Alpha: The significance level used to compute the confidence level. The confidence level equals 100*(1 - alpha)%, or in other words, an alpha of 0.05 indicates a 95 percent confidence level.
Standard_dev: The population standard deviation for the data range and is assumed to be known.
Size: The sample size.

Despite having 11 years of heat input data (2000-2010), *which EPA did use in calculating the standard deviations*, we were only able to match EPA's 95% confidence level calculation by using a sample size of 1. Using a sample size of 11 would have changed EPA's maximum state variability (adopted for all states) for SO_2 CSAPR from 18% to 5%. Had EPA used a 5% variability, it would have significantly lowered the assurance levels of all states in SO_2 CSAPR. Updating EPA's presently adopted variability for Texas from the CSAPR-calculated value of 7%, using

current heat input data for only those non-retired units expected to participate in the Texas SO2 trading program, and correcting the 95% confidence level as above, yields a variability level of 2%.

Response: In this proceeding, we did not seek comment on or reopen any aspect of the CSAPR regulations. However, in order to facilitate our response to comments on the proposed amendments to the Texas SO_2 Trading Program, we are responding to the commenter's statements concerning the CSAPR programs as necessary to correct errors in the commenter's statements that may also implicate the commenter's statements concerning the Texas SO_2 Trading Program.

We disagree with the commenter's assertions that we made an error in the statistical procedure for calculating the variability limits used in the CSAPR trading programs and the variability limit proposed for the Texas SO_2 Trading Program. Specifically, we do not agree that if the "CONFIDENCE" function in Microsoft Excel is used at step 4 of the procedure (as the steps are laid out in the comment), the appropriate value for the "size" parameter entered into that function is 11 instead of 1. To the contrary, the correct value is, in fact, 1. The commenter's error on this point materially affects the calculations on which the commenter's assertions are based. If the correct value of 1 is substituted for the incorrect value of 11 in the CONFIDENCE function in the spreadsheet that the commenter submitted as an exhibit to the comments, the spreadsheet yields values that confirm the correctness of our calculations.

In the five steps of the statistical procedure for calculating the variability limits as laid out in the comment, the first step is to calculate the trend line for a data set consisting of 11 data values, where each data value in the set is the total heat input for the relevant group of generating units for a single year. The second and third steps of the procedure together calculate the trend-adjusted standard deviation of this data set – in other words, the standard deviation around the trend line, which is a statistical measure of the remaining year-to-year variability in the data set beyond the portion of the overall year-to-year variability that is explained by the trend. The fourth step of the procedure is to compute, at a 95% confidence level, the expected maximum one-year deviation from the expected trend-based values, and the fifth step is to express the maximum one-year deviation as a percentage of the mean of the initial data set. The commenter is correct that for most steps of this procedure, where a mean or standard deviation for the data set is being computed, a value of 11 is used in the calculations to represent the size of the data set. However, in the fourth step of the procedure, the nature of the statistical question being asked is different. In this step, the question can be understood as: "Given the expected year-to-year variability (i.e., the trend-adjusted standard deviation) of the annual heat input values, what is the expected maximum deviation of any individual year's heat input value relative to the trend-based expected heat input value for that year, at a 95% confidence level?" For this question, the relevant "sample size" is 1, because the question is being asked about the heat input value for a single year, not the average of the heat input values for a sample of multiple years. In performing this step of the procedure in the CSAPR rulemaking, we simply multiplied the trend-adjusted standard deviation by 1.96, following the common practice for computing a two-sided 95% confidence interval for a variable that is assumed to be normally distributed. However, the same calculation can also be performed through the CONFIDENCE function in Microsoft Excel, using a value of 1 for the "size" parameter. In contrast, using a value of 11 for the "size" parameter in the CONFIDENCE function would answer a different statistical question, namely "given the expected year-to year variability of the annual heat input values, what is the expected

maximum deviation of the average of the heat input values for 11 years relative to the average of the trend-based expected heat input values for those years, at a 95% confidence level?" For purposes of establishing a variability limit and assurance level that would apply to the emissions reported for a single year, this second question is not relevant.

We have added to the docket for this action a spreadsheet that is a modified version of the spreadsheet the commenter submitted to the docket as Exhibit 3 to the comments on the supplemental proposal.[138] In the first section of the modified spreadsheet, where the commenter generally attempted to replicate the calculation of our proposed 7% variability limit for the Texas SO_2 Trading Program using the 2000-2010 data set for Texas units from the CSAPR rulemaking, but then used an incorrect value for the "size" variable in the CONFIDENCE function, we have made two additions. First, we have added cells with formulas to calculate the slope and intercept of the trend line in order to demonstrate that the formulas yield slope and intercept values matching the values that the commenter hardwired into the spreadsheet (possibly copied from our technical support document from the CSAPR rulemaking). Second, we added cells to recalculate the intermediate and final results using the correct value of 1 instead of the incorrect value of 11 for the "size" variable in the CONFIDENCE function. When this correction is made, the modified spreadsheet produces the 7% variability limit that we proposed to establish for the Texas SO_2 Trading Program.

In the next section of the modified spreadsheet, we have repeated the complete statistical procedure using the 2008-2018 data set of heat input values for Texas units that the commenter suggested would be more appropriate to use for calculating any variability limit for the Texas SO_2 Trading Program. Contrary to statements in the comment, these calculations were not included in the spreadsheet that the commenter submitted to the docket, if indeed the commenter did attempt to apply the statistical procedure to the more recent data set. When the statistical procedure is applied to the 2008-2018 data set for Texas units suggested by the commenter, the result is a variability limit of 12%, not 2% as asserted by the commenter. (The 2% variability limit asserted in the comment appears to be the result produced in the first section of the spreadsheet using the original 2000-2010 data set for Texas units and using the incorrect value of 11 for the "size" variable in the CONFIDENCE function.)

In the final section of the modified spreadsheet, we have repeated the complete statistical procedure using the 2000-2010 data set of heat input values for Tennessee units that was the basis for the 18% variability limit used in the CSAPR SO_2 trading program. Although we did not seek comment on and are not reopening this or any other aspect of the CSAPR SO_2 trading program, we are including the calculation here in order to rebut the commenter's assertion that the CSAPR SO_2 variability limit was calculated incorrectly and thereby to support our rebuttal of the commenter's assertion that the Texas SO_2 Trading Program proposed variability limit was calculated incorrectly. The results of the calculations in this section show a CSAPR SO_2 variability limit of 18%. The CSAPR SO_2 5% variability limit asserted by the commenter results only from using the incorrect value of 11 for the "size" variable in the CONFIDENCE function.

[138] See "EPA modified version of commenters Ex_3_-_Recalculate_TX_SO2_Trading _Variability.xlsx," available in the docket for this action.

Comment: EPA's proposed assurance level is incorrect. As indicated earlier, the assurance level EPA borrows from CSAPR is simply the sum of the SO_2 budget and the variability limit. Above, we demonstrate that EPA incorrectly incorporated the Texas variability limit from CSAPR into its Texas SO_2 trading program. As we indicate in our previous comments, EPA's trading budget of 238,393 tons itself is based on out-of-date and inappropriate data. Consequently, EPA's calculation of its variability limit, which is simply a percentage of this budget, is flawed. Had EPA re-applied the original CSAPR allocation methodology using updated information, and removed retired units, it would have discovered that the individual allocations in many instances would have changed significantly and the overall budget would have been reduced significantly. As we demonstrate in our previous comments, the trading budget would have been reduced from 238,393 tons to 176,332 tons. This represents a decrease of 62,061 tons or an approximately 26% change. Adding a 2% variability to the revised trading budget of 176,332 tons would result in an assurance limit of 179,859 tons.

However, even these simple steps, although greatly reducing the SO_2 budget, will not serve to place any regulatory pressure on Texas SO_2 sources to reduce their emissions. That conclusion is obvious because the 2018 SO_2 emissions of the participating non-retired units—which should be the only units participating in the program—total 157,119 tons. These emissions are already below the reduced assurance limit of 179,859 tons we calculate above. In addition, EPA's program does not provide for a declining cap over time. Thus, in comparison to actual source-by-source BART, the Texas SO_2 trading program, even if corrected to remove retired units, merely preserves the status quo. As such, it violates the primary objective of the national goal of the visibility program, "the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory class I Federal areas which impairment results from manmade air pollution."

Response: We disagree with this comment. The commenter correctly notes that the proposed assurance level for the Texas SO_2 Trading Program is derived from the proposed 7% variability limit and the existing budget for the Texas SO_2 Trading Program. Based on the commenter's beliefs that the variability limit should be 2% and that the existing budget is unlawfully high, the commenter asserts that the proposed assurance level is consequently also too high. We disagree both that the variability limit should be 2% and that the existing budget is unlawfully high. Accordingly, we also disagree with the commenter's resulting assertion that the proposed assurance level is too high. We have addressed the commenter's assertions regarding the proposed variability limit in response to other comments. As indicated in those responses, we continue to believe that 7% is an appropriate value to establish as the variability limit for the Texas SO_2 Trading Program. Likewise, we have also addressed the commenter's assertions regarding the lawfulness of the existing budget for the Texas SO_2 Trading Program in response to other comments, and the commenter offers no new criticism of the existing budget that was not already raised in those previous comments and addressed in our responses to those comments.

Comment: EPA's proposed assurance provisions are unlawful because they cannot ensure that "all necessary emission reductions take place during" first planning period. Under the Regional Haze Rule, any BART alternative must include a "requirement that *all* necessary emission reductions take place during the period of the first long-term strategy for regional

haze.". The first long-term strategy runs concurrently with the first planning period, which ends in 2018. Thus, any BART alternative was required to achieve "all necessary emission reductions" by the end of 2018—more than a year ago.

As explained in our previous comments, even if the Texas Trading Rule were valid, the Rule is still not fully effective and has not been implemented; therefore, EPA failed to require that all necessary reductions take place before 2018, the end of the first regional haze planning period under the EPA regulations that are applicable to BART trading programs. Indeed, EPA itself "recognizes that, in the absence of an assurance level" there are no means of guaranteeing that emissions would remain below a certain amount on an annual basis. 84 FR 61853. Because the Texas Trading Rule has still not been fully implemented, it fails, on its face, to ensure that "*all* necessary emission reductions take place during the period of the first long-term strategy for regional haze." *See* 40 CFR § 51.308(e)(2)(iii) (emphasis added).

EPA's reliance on the supposed extension of the first planning period does not relieve EPA of its obligation to ensure that emission reductions occur by the end of 2018, for at least two reasons. First, EPA has repeatedly stated that the BART requirements of the Regional Haze Rule were one-time obligations applicable to the *first* planning period. Second, EPA's 2017 revisions to the Regional Haze Rule make clear that:

> [a]ll of the[] changes apply to periodic comprehensive state implementation plans developed for the *second* and subsequent implementation periods and to progress reports submitted subsequent to those plans. These changes do not affect the development and review of state plans for the first implementation period or the first progress reports due under the 1999 Regional Haze Rule.

Thus, EPA's regulations make clear that any BART alternative (including any trading rule) was required to achieve all necessary emission reductions by the end of the first planning period—2018—something the Texas Trading Rule indisputably failed to do.

Even if EPA could rely on the extension of the planning period (which it cannot), the rule still fails, on its face, to ensure that all reductions actually take place during the *first* planning period. Indeed, the Supplemental Texas Trading Rule proposal explicitly states that EPA "proposes to make the assurance level effective beginning with the *2021 compliance period*"—*i.e.*, at the beginning of the second planning period—"and for each period thereafter." 84 FR at 61854. In other words, by its own terms, the assurance level proposed for the Texas Trading Rule would not be effective until the second planning period; and without the assurance provisions in place in the first planning period, EPA cannot guarantee the emission reductions actually take place. Thus, even with the proposed assurance level, the Trading Rule would still unlawfully fail to ensure that "*all* necessary emission reductions take place during the period of the first long-term strategy for regional haze." *See* 40 CFR § 51.308(e)(2)(iii) (emphasis added).

EPA cannot cure this defect by attempting to shoehorn some of the required reductions into the first planning period, or by making the assurance provisions effective January 1, 2021. Even applying EPA's erroneous and unlawful re-interpretation of the end of the first planning period, and even if the assurance provision became effective shortly before the technical

expiration of the first planning period, the agency still cannot guarantee that the assurance provisions will be in place and that the annual emission limits will occur for a full year. Moreover, the penalty provisions, by definition, cannot be applied to assure compliance until the year following a full year of implementation of the program. Thus, it is impossible for those assurance and penalty provisions to ensure that emissions reductions take place before the end of the planning period. Nor can EPA even ensure that those assurance and penalty provisions serve any regulatory or deterrent purpose (or upper bound) during the *first* planning period.

In sum, because any BART alternative would need to achieve all necessary emission reductions by 2018, and because the Texas Trading Rule has not been implemented by 2018, the Texas Trading Rule does not constitute a lawful BART alternative. 42 U.S.C. § 7607(d)(9)(A). Nothing in EPA's supplemental proposed rulemaking changes that fatal shortcoming in the Texas Trading Rule.

Response: After reviewing the Agency's position in the January 2017 final rule making amendments to the Regional Haze Rule, we are not finalizing a position in this action that the first planning period has been extended to July 31, 2021. We agree with the commenter that this position would be at odds with the national finding in the January 2017 action that our amendments there "do not affect the development and review of state plans for the first implementation period . . . ." 82 FR at 3080. Nonetheless, the Texas SO_2 Trading Program satisfies the requirement of 51.308(e)(2)(iii), because, as discussed in Section III.A.2 of the preamble of our final rule, the program ensures that emission reductions that were achieved prior to the end of 2018, sufficient to meet the requirements of the BART alternative, will be maintained through an enforceable program.

Actual emission levels from the sources covered by the BART alternative were below the levels mandated by the alternative by the end of the first planning period. In the case of the Texas SO_2 Trading Program, sources subject to the trading program were already emitting SO_2 at levels below the program budget prior to December 31, 2018. As discussed in our November 2019 supplemental proposal, the combined SO_2 emissions from Texas EGUs participating in the intrastate trading program were 179,630 SO_2 tons in 2018, which is well below the Texas SO_2 Trading Program budget of 238,395 tons (as well as the assurance level of 255,083 tons we are finalizing in this action).[139] Therefore, the emissions reductions secured under the trading program occurred prior to the end of the period of the first long-term strategy for regional haze. With the trading program taking effect with the start of the 2019 calendar year, actual emissions were never allowed to exceed the amounts called for by the BART alternative. This issue is further discussed in Section III.A.2 of the preamble of our final rule. We also note that we have never stated and do not agree that the existing Texas SO_2 Trading Program fails to ensure that all necessary emission reductions will occur by the end of the first planning period even without the addition of the assurance provisions. Our purpose in proposing to add the assurance provisions was merely to further ensure that the program's design is at least as stringent as the CSAPR SO_2 program as applied to Texas, not only on an average annual basis but also in individual years. Given that actual emission levels from the sources covered by the BART alternative were below the levels mandated by the alternative by the end of the first planning period, even before the addition of the assurance level, are projected to remain below that level even without the

[139] 84 FR 61853.

assurance level in effect, and will be further constrained once the assurance level goes into effect, we are determining that the Texas SO_2 Trading Program meets the timing requirement for a BART alternative at 40 CFR 51.308(e)(2)(iii).

Comment: EPA's proposed assurance provisions are unlawful because they allocate even more emission credits to sources that have already retired than the initial proposal. As explained in detail in the Conservation Organizations' October 2018 comments, EPA's BART alternative is arbitrary and capricious because it allocates emission credits to sources that have already retired before the trading program goes into effect. At the time of EPA's proposal to affirm the Texas Trading Rule, Big Brown Units 1 and 2, Monticello Units 1, 2, and 3, Sandow Unit 4, and Welsh Unit 2—accounting for 62,061 tons per year, or 26% of the total proposed SO_2 emission credits in the state—had already relinquished their operating permits and permanently retired. Since EPA issued its proposed "affirmation" rule, CPS Energy has retired both of its coal-burning EGUs at the JT Deely plant, accounting for another 12,252 credits allocated to EGUs that no longer operate. In total, the proposed Texas Trading Rule will allocate 74,313 tons per year in SO_2 emission credits—or 31% of the state's budget—to already-retired sources. For all of the reasons explained in the Conservation Organizations' October 2018 comments, EPA's allocation of credits to retired sources, and provision that the owners can sell or trade those credits, is arbitrary, capricious, and contrary to law.

In the Supplemental Texas Trading Rule proposal, EPA admits awarding emission allowances to EGUs that are not legally permitted to emit any SO_2 pollution but refuses to correct that defect. Instead, the agency inexplicably proposes to give the owners of those already-retired sources an even bigger emissions "variability" cushion, effectively ensuring that those companies will have no incentive or need to reduce emissions at any other source. In fact, EPA's supplemental proposal virtually ensures that certain utilities holding emission credits for already-retired sources will be allowed to continue polluting at the same or greater levels than before. Indeed, as shown below, under EPA's proposed Supplemental Texas Trading Rule, certain sources would be allowed to emit significantly more haze-causing pollution than they currently emit; specifically, (as the record makes clear) three utilities—Vistra-Luminant, AEP, and CPS Energy—will be allowed to emit tens of thousands of tons more pollution than the imposition of source-specific BART emission limits. This is because, as noted above, one company (Vistra-Luminant) now controls the vast majority of emission credits in the state.

Table 9. Comparison of Recent Emissions to Texas Trading Rule Allocations for Participating Sources.

Owner	Unit	Trading Allocation (TPY)	2018 Emissions	Surplus Emission Credits over 2018
Vistra-Luminant	Big Brown 1	8,473	3,401	
	Big Brown 2	8,559	3,258	
	Monticello 1	8,598	0	
	Monticello 2	8,795	0	

	Monticello 3	12,216	0	
	Martin Lake 1	12,024	19,282	
	Martin Lake 2	11,580	17,167	
	Martin Lake 3	12,236	19,749	
	Sandow 4	8,370	487	
	Coleto Creek	9,057	13,213	
	Stryker 2	145	0	
	Graham 2	226	0	
Total Vistra-Luminant		100,279	76,557	+23,722
AEP	Welsh 1	6,496	7,528	
	Welsh 2	7,050	0	
	Welsh 3	7,208	6,694	
	HW Pirkey	8,882	5,084	
Total AEP		29,636	19,306	+10,330
Variability Cushion				+16,688

As reflected above, EPA's Supplemental Trading proposal allocates two companies—Vistra-Luminant and AEP—with a substantial number of excess emission credits for already-retired units; to compound that error, EPA introduces a new variability cushion that essentially ensures that those utilities' remaining units will not have to reduce emissions at all. Given that Big Brown, Monticello, and Sandow are no longer permitted to emit any SO_2, the Texas Trading Rule effectively allows Vistra-Luminant's remaining coal units to significantly increase their 2018 emissions. Moreover, as a result of the allocation of credits to already-retired sources, the Texas Trading Rule gives Vistra-Luminant control of emission credits equivalent to 50% of total 2018 emissions from participating sources. With the addition of a variability cushion, the Texas Trading Rule effectively ensures that none of Vistra-Luminant's remaining, subject-to-BART coal units will be required to reduce emissions; in fact, it arbitrarily allows those units to increase emissions significantly. Moreover, the rule gives Vistra-Luminant a windfall of SO_2 credits. Vistra-Luminant will control credits equivalent to more than 50% of actual emissions.

Similarly, the Texas Trading Rule allows AEP's remaining coal units to increase SO_2 emissions by 36% over recent year emissions. CPS Energy gets a windfall because, as a result of the retirement of J.T. Deely, it now emits zero SO_2 from BART-eligible EGUs participating in the Trading Program, but EPA has arbitrarily and inexplicably given the Company 12,257 credits, further diluting the already flooded SO_2 pool. This serves only to eviscerate the Clean Air Act's and Regional Haze Rule's requirements that BART sources reduce haze-causing pollution.

Continuing to grant allowances to already-retired units and providing a variability cushion exacerbates the flaws in the Texas Trading Rule by allowing the remaining units to significantly increase emissions relative to recent emission levels. EPA has not only failed to articulate any rational basis for continuing to provide allowances to a unit that retires and is no longer operating, but it cannot demonstrate that awarding emission credits to sources that are no

longer legally permitted to operate will "achieve greater reasonable progress" than the status quo or source-specific BART. 40 CFR §§ 51.308(e), (e)(2); *see also* 40 CFR § 51.308(d)(vi) (reasonable progress cannot be "less visibility improvement than is expected to result from implementation of other requirements of the CAA"). EPA must, at a minimum, limit emission credits to participating, non-retired units.

EPA attempts to justify the continued allocation of credits to retired sources on the grounds that total Texas EGU emissions will remain below the 317,000 tons per year threshold that EPA's 2012 sensitivity analysis, in the context of the CSAPR, deemed sufficient to be "better than BART." EPA further suggests that the assurance provisions and variability limits provide a cap on state emissions and effectively "moot" any concerns regarding the allocation of emissions to retired sources.

That is incorrect, for several reasons. As an initial matter, and as discussed in more detail below, EPA's continued reliance on the outdated sensitivity analysis is arbitrary and capricious. In any event, it is not enough that the emissions reductions under the Texas Trading Rule "compare favorably" with the emission reductions required under CSAPR. The Regional Haze Rule mandates that any BART alternative "must achieve greater reasonable progress than would be achieved through the installation and operation of BART" 40 CFR § 51.308(e)(2), (e)(2)(i)(E), (e)(3), not an alternative to BART.

As explained in Conservation Organizations' October 2018 comments, the record makes clear that the Trading Program will not make greater reasonable progress than source-specific BART. In the January 2017 BART proposal, EPA determined that source-specific BART would reduce SO_2 emissions by approximately 194,000 tons per year, "a larger reduction than projected under CAIR or CSAPR." Source-specific BART emission reductions would result in significant visibility improvements across numerous Class I areas.

In contrast, even with the assurance provisions, EPA's supplemental rule allows Texas sources to emit up to 290,081 tpy—a mere 19,000 tpy reduction from EPA's own baseline 2014 emissions of 309,296 tons per year. Moreover, EPA has not conducted any further modeling, so at best, the Texas Trading Rule plus CSAPR in other states may result in 1.6 dv improvement over 2014 base case emissions. Even with the assurance provisions, the EPA Texas Trading Rule could still result in Texas BART sources emitting up to 79,056 tons of SO_2 more than they emitted in 2018 (290,081- 179,628); 44,211 tons of SO_2 more than what they emitted in 2017 (290,081 tpy – 245,870), up to 71,790 more tons of SO_2 than in 2016 (290,081 – 218,291), and up to 53,327 more tons of SO_2 than in 2015 (290,081 – 236,754). 84 FR at 61854, Table 1. EPA offers no rational basis for allowing Texas EGUs to significantly exceed recent emissions, and no explanation for how such a trading scheme could possibly represent greater reasonable progress than a source specific BART rule that would have required between 90-95% emission rate reductions from the Texas Trading Rule EGUs. Such silence is perhaps not surprising, as no rational explanation can be provided on either point.

That Texas' overall EGU emissions have coincidentally been decreasing in recent years is not a legitimate basis for adopting a do-nothing Trading Program in lieu of source-specific BART. First, EPA must ensure that any BART alternative "achieve[s] greater reasonable progress than would be achieved through the installation and operation of BART." 40 CFR §

51.308(e)(2). In making any evaluation of what constitutes reasonable progress, in turn, the Regional Haze Rule requires that such progress is the "result of [] enforceable emissions limitations." *Id.* § (f)(2)(i). Second, EPA cannot rely on emission reductions that are already occurring as a result of other Clean Air requirements, including reductions required as a result of the relinquishment of a Title V operating permit. 40 CFR § 51.308(e)(2)(iv) (EPA must demonstrate that the emission reductions resulting from any emissions trading program or other alternative measure will be "surplus to those reductions resulting from measures adopted to meet requirements of the Clean Air Act."). Finally, the Clean Air Act and Regional Haze Rule require source-specific BART unless EPA shows that a trading program will achieve "greater reasonable progress" than source-specific BART—not simply greater progress than status quo in 2014. EPA has not even asked that question—let alone evaluated—whether the Trading Program will achieve greater progress than source-specific BART. Nor has it asked whether the Trading Program will achieve greater progress than actual, *current* emissions.

EPA's allocation of emission credits to already-retired EGUs is not only arbitrary on its face, but as explained in more detail below, it could lead to a significant change in the geographic distribution of emissions, which the agency fails to acknowledge or evaluate. This is because, as noted above, control of the vast majority of emission credits in the state lie in the hands of Vistra-Luminant. Indeed, Vistra-Luminant's remaining coal units subject to the Texas Trading Rule (Martin Lake and Coleto Creek) are now in a position to continue emitting SO2 at the same or higher levels than they have emitted in recent years. Those four EGUs are already among the most significant contributors to visibility impairment in affected Class I areas. Given EPA's continued allocation of emission credits to the now-retired Big Brown, Monticello, and Sandow units (which go to Vistra-Luminant), the Texas Trading Rule allows Martin Lake and Coleto Creek to significantly exceed the unit-level emissions levels EPA assumed under the 2012 Sensitivity Analysis. Similarly, EPA's allocation of credits to the now-retired Welsh Unit 2 allows AEP's remaining coal EGUs to exceed the emission assumed under the 2012 analysis. Moreover, because other Texas units may be somewhat constrained, the over-allocation of credits to Vistra-Luminant and AEP, coupled with the additional variability cushion will result in a geographic distribution of emissions that differs significantly from the assumptions in the 2012 sensitivity analysis. As a result, and as explained below, EPA cannot rely on that now-obsolete sensitivity modeling to conclude that there will be visibility improvement across all affected Class I areas relative to source-specific BART.

Response: As stated in responses to several other comments in this document and in today's final action, we disagree that in developing a specific trading program, EPA must incorporate new design features, particularly when other legal and policy considerations weigh in favor of making the program similar in design to a specific previous program that does not include those design features. Likewise, EPA is not required to incorporate new design features that may be suggested by a commenter and is not required to update every data element used in the rulemaking. In this instance, the Texas SO_2 Trading Program was designed to qualify as a BART alternative in light of EPA's previous determinations regarding permissible BART alternatives, and for that reason was designed to be as similar as possible to the CSAPR SO_2 program. Both the amounts of the initial allocations to units under the Texas SO_2 Trading Program and the treatment of the allocations to units that have been retired for at least five years are directly based on the analogous provisions in the CSAPR SO_2 program. As discussed in

response to another comment on the Texas SO_2 Trading Program's Supplemental Allowance Pool, in those aspects of the overall allocation methodology where the Texas SO_2 Trading Program allowance allocation provisions deviate from the CSAPR SO_2 program allowance allocation provisions, the Texas SO_2 Trading Program is generally more, not less, stringent.

With respect to the commenter's point that the amount of the CSAPR SO_2 program budget for Texas was initially determined based on our assessments of the state's interstate transport obligations at the time of the CSAPR rulemaking, we agree with the statement but do not consider the point relevant to this final action. The origins of the CSAPR budgets are immaterial to this action. Along with certain budget adjustments that were addressed through sensitivity analyses, the CSAPR budgets were used in our 2012 CSAPR Better-than-BART determination and therefore remain relevant for purposes of our determination in this action that the Texas SO_2 Trading Program qualifies as a BART alternative in the context of the 2012 CSAPR Better-than-BART determination.

With respect to the commenter's identification of alternative possible distributions of allowances among the units covered by the program, we do not believe that altering the distribution of allowances while leaving the total number of allowances the same would change the stringency of the program, although it could address concerns regarding whether the distribution among the sources is equitable. As none of the sources covered by the program have raised equity concerns about the initial allocations, and given that we do not understand the commenter to be raising such concerns, we see no reason to redistribute the initial allocations. We address the comments regarding the stringency of the program cap elsewhere.

With regard to the commenter's position that allowances allocated to units that retire should be eliminated from the budget instead of being reallocated, that is of course an option in designing a trading program, but it is not a requirement, and it is not a feature of the CSAPR SO_2 program on which the Texas SO_2 Trading Program was modeled. We were not required and did not find it necessary to take such an approach in the Texas SO_2 Trading Program in order to ensure that the program qualifies as a BART alternative in the context of the 2012 and 2017 CSAPR Better-than-BART determinations.

Comment: EPA's Supplemental Texas Trading Rule proposal is arbitrary and capricious because the agency continues to rely on supporting documents and analyses that are now obsolete. As an initial matter, these documents predate EPA's supplemental proposal by nearly a decade. EPA's assurance provisions fail to account for the significant changes in the regulatory landscape since those documents were developed, including: 1) EPA's final rule withdrawing Texas from Phase 2 of the CSAPR trading program for both annual emissions of SO_2 and NOx because, according to the agency, the state no longer has any good neighbor obligations for downwind PM or ozone impacts; 2) EPA's final "CSAPR Close Out" Rule, which eliminates the CSAPR NOx emissions trading program, based again on EPA's finding that the CSAPR states no longer have good neighbor obligations under the 2008 ozone standard; and 3) EPA regulations implementing related rules, such as the removal of Georgia and South Carolina from CSAPR for SO_2 emissions. 82 FR 45481 (Sept. 29, 2017) (withdrawal of Texas from CSAPR's SO_2 trading program); 4) other changes in electricity generation and related emission levels and downwind impacts of air pollution.

In the face of these changes, EPA's Texas Trading Rule and assurance provisions arbitrarily rely on the agency's outdated 2012 sensitivity modeling, which explicitly relies on continued NOx emission reductions from other CSAPR states to conclude that even with increases Texas's NOx and SO_2 budgets, CSAPR remains better than BART. In light of EPA's "close out" of the NOx provisions of the Transport Rule, on which the 2012 sensitivity analysis was predicated, the agency cannot rationally rely on that 2012 analysis to demonstrate that the Texas Trading Rule "will achieve greater reasonable progress than would have resulted from the installation and operation of BART at all sources subject to BART," 40 CFR § 51.308(e)(2)(i), or that visibility will not be degraded.

That CSPAR's SO_2 budgets remain effective does not cure the problem because, again, the sensitivity analysis relies on the continued existence of *both* a NOx and SO_2 emissions trading program to conclude that the Texas trading program could be better than BART. Under EPA's own regulations, if the distribution or extent of emissions is different under an alternative program, a state "must conduct dispersion modeling." 40 CFR § 51.308(e)(3). EPA unlawfully fails to acknowledge or evaluate the changes in the distribution and extent of haze-causing pollution that will inevitably occur as a result of the elimination of CSAPR-related pollution limitations, including the elimination CSAPR's SO_2 budgets for non-BART Texas EGUs, the elimination of CSAPR's NOx limitations for all sources in the Eastern United States, and the withdrawal of Georgia and South Carolina from the CSAPR SO_2 program.

EPA's refusal to revisit its outdated "better-than-BART" technical analysis is even more egregious in light of EPA's elimination of *any* good neighbor pollution-reduction obligations—SO_2 or NOx—for 14 coal-burning Texas EGUs. Indeed, EPA's 2012 sensitivity analysis, which is the basis for its continued assertion that the Texas Trading Rule is "better-than-BART," was explicitly predicated on the assumption that *all* Texas EGUs would be subject to the CSAPR SO_2 and NOx trading programs. The Supplemental Trading Proposal excuses 14 Texas EGUs—the now non-participating EGUs—from any emission limitations whatsoever. Those sources were limited to 36,047 tons of SO_2 per year under CSAPR, with source-specific emission allowances. 84 FR at 43,601. Although EPA asserts that those sources emitted less than 27,500 tons of SO_2 in 2016 and that such emissions are "not projected to significantly increase," that expectation is not enforceable. As noted, in adopting a trading program in lieu of BART, EPA must ensure that the alternative "achieve[s] greater reasonable progress than would be achieved through the installation and operation of BART." 40 CFR § 51.308(e)(2). And in making any evaluation of what constitutes reasonable progress, the Regional Haze Rule requires that such progress is the "result of "enforceable emissions limitations." *Id.* § 51.308(f)(2)(i). EPA fails to evaluate whether enforceable emissions limitations from those non-trading rule sources are necessary to ensure that the Texas Trading Rule as a whole achieves greater reasonable progress than source-specific BART. As a result, the agency fails to demonstrate that the proposed Texas Trading Rule meets the basic requirements of any BART alternative.

Moreover, the agency fails to consider or evaluate whether the elimination of the good neighbor obligations for those sources would alter the extent or distribution of haze-causing emissions from those 14 coal-burning EGUs. In sum, without any enforceable emissions limitations for those sources, EPA cannot ensure that emissions stay below any threshold; more

importantly, the agency cannot ensure that the distribution and extent of emissions from those sources will remain identical or even similar to the assumptions underlying EPA's 2012 Sensitivity Analysis.

Moreover, EPA has arbitrarily failed to update either its power sector emissions modeling or its air quality modeling to account for changed conditions since its 2012 Transport Rule, including its recent CSAPR Update Rule (excluding multiple states from CSAPR's SO2 requirements) and the CSAPR Close Out Rule (eliminating the NOx emissions requirements of the rule). Instead, it seeks to rely on a sensitivity analysis from 2012, and to otherwise pretend that the intervening changes noted above have not occurred. EPA's supplemental proposal attempts to answer the question of whether CSAPR would still have been better than BART had the 2012 updated budgets remained in place, rather than answer the legally relevant question of whether the agency's invented Texas Trading Rule is actually better than source-specific BART.

Even assuming that EPA can ignore the vastly changed regulatory landscape and differences in power sector emissions generally, EPA failed to consider geographic changes to emissions across the region. Neither the 2018 "affirmation" rule, nor the Supplemental Trading proposal, contains any discussion of whether the geographic distribution of emissions under the remnants of CSAPR and the newly devised Texas Trading Rule will be the same. As explained in Conservation Organizations' October 2018 comments, cap and trade rules like the Texas Trading Rule tend to concentrate emission at allowance-purchasing sources of air pollution, which may in turn lead to visibility declines in affected Class I areas protected by the Regional Haze program. Indeed, EPA has not accounted or even acknowledged the possibility that intrastate trading will impact the geographic distribution of emissions.

EPA's newly devised assurance provisions exacerbate the potential change in the distribution of emissions. Indeed, as discussed above, the combination of allocating emission credits to already-retired units and the addition of a variability cushion for emissions means that one utility—Vistra-Luminant—owns a disproportionately large share of emission credits. This means that Vistra-Luminant's remaining EGUs subject to the Texas Trading Program will be able to continue to emit at levels far above source-specific BART, and well in excess of the emissions assumed under the CSAPR variability limits. EPA's proposed Supplemental Texas Trading Rule fails to account for the significant changes (compared to CSAPR) in the distribution and magnitude of emissions from Texas's largest EGUs with the most significant visibility impacts on Class I areas. Thus, even assuming that Texas's emissions remain below the 317,000 ton threshold EPA deems better than BART, the agency has failed to account for visibility impairment at Class I areas that may be exacerbated by changes in emissions distribution based on the agency's new variability limits in addition to the allocation of additional emission credits to the owners of retired units.

EPA cannot simply assume that the visibility improvement averaged across *all* Class I areas will still be better under the intrastate Texas Trading Rule than it would be under source-specific BART. Without updated modeling, EPA has no data to demonstrate that the requirements of the Regional Haze Rule—i.e., (i) no decline in any Class I area visibility, and (ii) overall improvement in visibility, 40 CFR § 51.308(e)(3)—will be met in spite of the substantial changes in the distribution of Texas emissions and significant changes to Transport Rule

coverage and budgets. Because of the complexities of the allowance market, EPA cannot simply assume that no Class I area will experience visibility declines under the intrastate Texas Trading Rule.

Moreover, in light of the significant changes since EPA's 2012 CSAPR Sensitivity Analysis in addition to the budget alterations, including those noted above, it is unreasonable for EPA to pretend that its prior analysis is still valid. Accordingly, EPA must withdraw its unlawful Texas Trading scheme, and update and re-propose its source-specific BART rule. At a minimum, and based on the significant changes in the magnitude and distribution of emissions, EPA must update the technical support for its action, as required by the Regional Haze Rule, and as the agency has done in other contexts, as explained above. EPA can and must do the same updated analysis here.

Response: We disagree with this comment. As noted in response to a previous comment, the proposed assurance provisions would not alter either the budget for the Texas SO2 Trading Program or the allocations of allowances to individual sources and would not in any sense provide either individual sources or all Texas sources as a group with an ability to increase their emissions relative to the emissions levels that are allowed under the existing program. The assurance provisions would simply establish a new fixed limit on the annual emissions from all sources covered by the program beyond which any incremental emissions would trigger new requirements to surrender more than one allowance per ton of emissions. While we did not seek comment on or reopen the CSAPR Update rule in this proceeding, the commenter is incorrect that the CSAPR Update and Close-out rules eliminated the ozone season NOx trading program in Texas or many other states; in fact, the Update generally tightened ozone season budgets across the eastern U.S. We note that in this action we did not reopen our October 2017 determination that Texas' participation in the ozone season program under CSAPR and CSAPR Update serves as a BART-alternative as to NOx. *See* 83 FR 43586, 43590. The commenter is also incorrect in asserting that the CSAPR Update rule or CSAPR Close-Out determination in any way amended the requirements under the original CSAPR rule with respect to SO_2 emissions and annual NOx emissions. Contrary to the suggestions in the comment, CSAPR's trading programs for SO_2 and annual NOx emissions remain in effect, and except for the sources in Texas, the sources in all other states originally covered by these programs – including the sources in Georgia and South Carolina – continue to participate in the programs under either FIPs or approved SIPs.

Further, as already addressed elsewhere in response to comments, EPA is simply applying to the Texas SO_2 Trading Program the 2012 and 2017 determinations that CSAPR serves as a BART alternative. EPA is not reopening the analysis on which those determinations were made, and such issues are beyond the scope of this action.

To the extent that Texas is an intrastate program rather than part of the CSAPR interstate trading region, the commenter asserts that such a difference means the geographic distribution of emissions in Texas is more uncertain and therefore must be reanalyzed under 40 CFR 51.308(e)(3). But, as a general matter, the smaller, intrastate trading region for Texas means the opposite should be the case, all else being equal. Emissions may shift among sources in any trading region as a function of the nature of a trading program. Yet, EPA's Regional Haze Rule authorizes trading programs as BART alternatives. CSAPR is just such a trading program, and

EPA analyzed that program according to the requirements of the Regional Haze Rule and found, in 2012, and again in 2017, that CSAPR achieves greater reasonable progress than BART as to both prongs of section 51.308(e)(3). It follows that the Texas program, which is functionally equivalent to the CSAPR program that would have applied in Texas, can rely on that same analysis.

Finally, the commenter is simply incorrect that EPA did not analyze and account for the effects of some units that would have been subject to CSAPR not being included in the Texas SO_2 Trading Program. As explained thoroughly elsewhere in the record, EPA evaluated these units' emissions, visibility impacts, likelihood of generation shifting to such units, and other relevant considerations, in determining that the non-coverage of these units would not affect its conclusion that the Texas SO_2 Trading Program is functionally equivalent to CSAPR. The use of an aggregate assumption of emissions from these non-covered units (of 35,000 tons per year), as further support for EPA's determination on the clear weight of evidence, is not impermissible. EPA has explained why this figure is in fact conservatively high, and emissions from these units are not reasonably expected to exceed this amount. Using that figure, EPA has established further evidence that the Texas SO_2 Trading Program is at least as stringent as CSAPR would have been.

Comment: While I am glad that the Agency has taken care to address many prior comments submitted on previous versions of the SIP, I do not feel that all of the newly proposed measures are sufficient to satisfy the criteria of a successful SO_2 trading program or to address prior comments. My primary concern is with the scope of assurance provisions. While I applaud the Agency for responding to widespread public comments on the need for an assurance provision, I do not believe the static 255,081 allowances [tons] that are permitted annually is appropriate.

Coal-fired power plants are shutting down across the state. In the last year, three coal-fired power plants were shut down which at one time provided a combined 4,000 MW of generating capacity to the great state of Texas (Houston Chronicle, 2019). If the emissions assurance provision stays flat, individual sources will be able to emit more and more each year as older or less profitable facilities shut down. This is the exact opposite outcome to the initiatives target.

Increased SO_2 emissions from individual sources may technically meet state-wide air quality targets, but will negatively impact local air quality, damaging both visibility and human health. I propose two different strategies to remedy this. One option the administration might consider is to examine historic emissions by source and define new limits on a per-facility basis informed by historic emissions that met the CSAPR for SO_2. This would ensure that even if some facilities closed, those that remained operational would not be able to increase their SO_2 emissions.

Alternatively, the Agency could implement an emissions limit that declines annually. Many successful cap-and-trade programs, such as those implemented in Europe and the U.S. for CO_2 emissions, are designed to have steadily decreasing emissions limits. Under a declining emissions-limit scenario, if plants did close, operational facilities would potentially still be able

to emit more, but to a lesser extent than if the cap stayed constant. If all regulated facilities stayed open, each polluter would have to find additional methods to decrease SO_2 emissions, further improving visibility and human health. I worry that without decreasing emissions assurance limitations or source-specific SO_2 limits, improved visibility in protected areas such as the Wichita Mountains National Wildlife Refuge and Guadalupe Mountains National Park will not come to fruition as a result of more concentrated emissions, even if they come from fewer sources.

My second concern is the consideration of non-participating sources emissions and their contribution to the total assurance provisions. The Agency proposes to allot 35,000 tons per year to non-participating sources, effectively increasing the assurance provision to 290,081 tons per year. According to Table 1 in the proposed rule, total EGU emissions in Texas have decreased since 2014. This is an encouraging sign, but the proposed rule would nearly allow emissions to return to 2014 levels. It is nonsensical to place a limit on SO_2 emissions does not pressure polluters in the slightest. The NPRM states that after the most recent update to the Rule, commenters argued that the Texas SO_2 trading program would, unlike source-specific BART control requirements, allow for emission to increase compared to recent emission levels. As the proposed emissions assurance level is higher than emissions levels in recent years, I do not feel that the Agency has adequately addressed this concern. The state of Texas has clearly made great strides in decreasing sulfur emissions from coal-fired powerplants and the EPA has a responsibility to Texans and residents of neighboring states to maintain that progress, not reverse it.

I would also like to thank the Agency for considering prior public comments and implementing important changes. Namely, the Supplemental Allowance Pool allocation provisions. Commenters rightly noticed that any individual owning multiple regulated polluting sources could use surplus allowances from one source to cover emissions from other sources that may exceed their baseline allowance allocations. I support the decision to make allocations from the Supplemental Allowance Pool proportional to an owner's total excess emissions rather than the proportion of excess emissions from individual sources. This provision helps ensure that individuals who own numerous EGUs are not at an advantage over those who do not.
Thank you for taking the time to read this comment and I hope you will consider its content.

Response: We appreciate the commenter's concerns and suggestions. With regards to localized impacts, as previously discussed in response to other comments, the analysis EPA is relying on does not show visibility declines compared to the baseline in any Class I area under the BART alternative. Under the Regional Haze Rule, states are directed to conduct BART determinations for "BART-eligible" sources that may be anticipated to cause or contribute to any visibility impairment in a Class I area. States are required to identify the level of control representing BART after considering the five statutory factors set out in section 169A(g)(2) for each source subject-to-BART.[140] However, the Regional Haze Rule also gives states the

[140] The State must take into consideration the five statutory factors: (1) the costs of compliance, (2) the energy and non-air quality environmental impacts of compliance, (3) any existing control technology in use at the source, (4)

flexibility to adopt an emissions trading program or alternative program in place of requiring source-specific BART controls, as long as the alternative provides greater reasonable progress towards improving visibility than BART. As discussed in Section I.A. of the preamble of our final rule, 40 CFR 51.308(e)(2) specifies how a state must conduct the demonstration to show that an alternative program will achieve greater reasonable progress than the installation and operation of BART. As discussed in Section III.A.2 of the preamble of our final rule, we are taking final action to affirm our determination that the Texas SO_2 Trading Program, as amended in this final action, meets the requirements of 40 CFR 51.308(e)(2) as a BART alternative for SO_2 to satisfy Texas' Regional Haze obligations. Comments on EPA's decision to authorize alternative measures, including emissions trading programs, in the original 1999 Regional Haze Rule are beyond the scope of this action.

The comment that we have "allotted" 35,000 tons to non-participating units is incorrect. The Texas SO_2 Trading Program only pertains to the particular set of EGUs specified in Table 1 of the Federal Register notice for this final rule. The estimate of emissions from non-participating units is used as a conservative assumption to allow for a comparison of SO_2 emissions from EGUs in Texas under the Texas program with emissions under CSAPR.

Comment: SPS supports the addition of an assurance level because it will help limit SO_2 emissions from the covered sources in the state. The BART alternative analysis presumes that EPA can project with confidence that emissions will stay below a certain level every year. The ability to bank allowances under the Texas SO_2 Trading Program could weaken that confidence and put EPA's analysis in jeopardy. While banking is important to the proper functioning of a cap-and- trade program, the use of banked allowances for compliance purposes could cause annual emission levels in Texas to vary to a greater degree. For example, by relying on banked allowances, EGUs might choose to emit at higher levels and surrender more allowances in a given year rather than reduce emissions.

Response: We appreciate support that the assurance level will function to ensure emissions performance on an annual basis below that level. This addresses concerns that banking of allowances would lead to unacceptably high emissions in later years.

Comment: SPS also supports the other proposed revisions to the Texas SO_2 Trading Program. First, EPA proposes to revise the Supplemental Allowance Pool to eliminate the preference for supplemental allowances that the current program grants to Coleto Creek. SPS agrees that revising the Supplemental Allowance Pool allocation provisions to eliminate the preferential treatment for Coleto Creek is appropriate given that changes in Coleto Creek's ownership have obviated the need to provide it with additional flexibility with respect to allowances.

Response: We appreciate the comment in support of this action.

---

the remaining useful life of the source, and (5) the degree of visibility improvement which may reasonably be anticipated to result.

Comment: Second, EPA proposes to terminate the Trading Program's opt-in provision. SPS does not see a need for an opt-in provision and there is a risk that allowing sources to opt into the program could weaken the functional equivalence between the Program and CSAPR and, relatedly, EPA's analysis that the Texas SO_2 Trading Program is better than BART. Accordingly, SPS supports eliminating the opt-in provision.

Response: We appreciate the comment in support of this action.

Comment: EPA proposes to amend the allowance recordation provisions in the Texas SO_2 Trading Program. Currently the EPA Administrator can delay recordation of allowances if Texas submits a revision to its State Implementation Plan ("SIP") before the recordation deadline. EPA proposes to revise the language to clarify that the Administrator must approve the SIP revision as well. SPS welcomes EPA's proposed revision, which would ensure that the Texas SO_2 Trading Program remains fully operational unless it is replaced by a SIP revision that is approved by the Agency.

Response: We appreciate the comment in support of this action.

Comment: The Texas Commission on Environmental Quality (TCEQ) appreciates the United States Environmental Protection Agency (EPA) providing an opportunity to comment on the proposed additional changes to the sulfur dioxide (SO_2) intrastate trading program FIP for Texas. The TCEQ continues to support the EPA's SO2 intrastate trading program as proposed in this supplemental notice and agrees that the program is an appropriate BART alternative for certain electric generating units in Texas.

Response: We appreciate the comment in support of this action.

Comment: The LCRA reasserts the comments it submitted on May 5, 2017, in response to the prior EPA proposal published January 4, 2017 (82 FR 912). In those comments, LCRA set forth its position opposing the source-specific Federal Implementation Plan that was proposed at that time. That proposal was flawed in many ways, most importantly in its proposed determination that LCRA's Fayette Power Plant Units 1 and 2 (FPP or FPP Ul and U2) were "subject to BART." As explained in detail in our May 2017 comments, LCRA has made significant environmental investments in the FPP units, including the addition of wet limestone fluidized desulfurization units (also known as wet flue gas desulfurization (FGD) units or scrubbers) to Units 1 and 2 in 2011-2012 at the cost of approximately $400 million. In the January 2017 proposal, EPA recognized the scrubbers for purposes of demonstrating the technology as feasible, but not for purposes of determining whether FPP caused or contributed to a visibility impairment at a Class 1 area. Instead, to assess the visibility impacts of FPP, EPA improperly used data from 2000-2004, which pre-dated the installation of the scrubbers. As noted in our May 2017 comments, this is an arbitrary and capricious application of the statute and rules. EPA did not finalize the "subject-to-BART" determinations for Texas EGUs, finding that it was not necessary. LCRA requests that EPA now concur that the most current available data must be used for visibility impact determinations under the Regional Haze program. Although it is LCRA's position that none of its electric generating units (EGUs) are subject to the BART program, at this time, LCRA does not oppose EPA's inclusion of FPP Ul and U2 in the

Texas SO_2 trading program adopted in the October 2017 Federal Implementation Plan. LCRA believes that having certainty for planning purposes is critical to its own EGU operations as well as those of the entire ERCOT market. The FIP that was developed by EPA established a reasonable system to provide both control of SO_2 for visibility protection as well as established and predictable requirements for the industry. Therefore, LCRA supports affirmation of the October 17, 2017 FIP.

Response: We appreciate the comment and note that we have previously responded to comments regarding BART determinations for Fayette Power Plant in our October 2017 final action.

Comment: LCRA believes with the finding made by EPA in October 2017 that the SO_2 trading program satisfies the statutory and regulatory requirements as a BART alternative is a legally supportable approach to the BART alternative program adopted in the FIP. LCRA does not oppose the changes in the SNPRM to the extent they further align the Texas program with CSAPR and do not change the allocation of allowances to LCRA.

Response: We appreciate the comment in support of this action.

Comment: Vistra supports the Texas SO_2 Trading Program that operates as a BART alternative established in the Texas BART Rule because it provides a flexible and efficient mechanism for complying with the BART requirements under the Clean Air Act ("CAA") and achieves substantial and lasting reductions of SO_2 emissions from Texas EGUs. The Texas SO_2 Trading Program as established in the Texas BART Rule "achieve[s] greater reasonable progress" than BART and satisfies all requirements for a BART alternative in 40 CFR § 51.308(e)(2). Although not necessary, limited revisions included in the Supplemental Proposal will continue to ensure the Texas SO_2 Trading Program is better than BART as discussed below.

Response: We appreciate the comment in support of this action.

Comment: EPA points to the fact that "the potential use of banked allowances and allowances allocated from the Supplemental Allowance Pool could result in potentially significant year-to-year variability in emissions" to support the adoption of an assurance level. However, the risk of year-to-year variability does not necessitate an assurance level. Neither the Regional Haze rule nor the BART alternative requirements require year-to-year consistency from sources' emissions. In fact, the Regional Haze regulations account for year-to-year variability by looking at multi-year averages when assessing visibility conditions for each area. Further, the assurance levels in CSAPR were not designed to prevent year-to-year variability; rather, they were specifically established at a level that allows for year-to-year variability, as EPA recognized that demand varies year-to-year. Thus, there is no inherent issue in the fact that there may be year-to-year variability under the Texas SO_2 Trading Program that would necessitate an assurance level. Similarly, any concerns about whether the "Texas SO_2 Trading Program would, unlike source- specific BART control requirements, allow for emissions to increase compared to recent emission levels" are speculative and of little relevance here. Nothing in the Regional Haze rule requires absolute year- over-year reductions under BART or a BART alternative so long as EPA can demonstrate that the BART alternative achieves greater reasonable progress toward

improving visibility impairment than BART. And here, EPA can already "project with confidence" that emissions from covered EGUs in Texas will not exceed a certain level due to the recent retirements identified in the 2018 Proposed Affirmance.

Nevertheless, EPA's proposal to add an assurance level provision to the Texas SO_2 Trading Program would not pose practical problems with the program and may provide further support that the program is better than BART. If EPA does finalize an assurance level for the Texas SO_2 Trading Program, Vistra supports EPA's proposal to set the assurance level using the same methodology relied on in the original CSAPR rulemaking, resulting in a variability limit of 16,688 tons and an assurance level of 255,081 tons for Texas. However, Vistra encourages EPA to calculate allowance surrender obligations, in the event statewide SO_2 emissions exceed the assurance level, on an "affiliated ownership group"-basis rather than a "common designated representative"-basis as currently proposed. Sources in an "affiliated ownership group" do not necessarily rely on the same common designated representative for each source due to various business decisions (nor are they required to), and these sources should not be "penalized" under the assurance provisions in the event a given source exceeds its allowance allocation but other owner- affiliated sources have a surplus. Therefore, Vistra encourages EPA to adopt a methodology to calculate allowance surrender obligations on an "affiliated ownership group"-basis.

Response: We appreciate the comment in support of this action.

Comment: Vistra continues to support eliminating the priority given to Coleto Creek for allocations from the Supplemental Allowance pool. As stated in our comments on EPA's 2018 Proposed Affirmance, this priority is no longer necessary in light of its change in ownership.

However, further revisions to the allowance allocation methodology are not necessary. Specifically, EPA's proposal to change from a source-specific allocation approach to an "affiliated ownership group" allocation approach for the Supplemental Allowance Pool is not appropriate because the existing source-specific approach more closely aligns with the approach taken for surplus allowances from the new unit set-side in CSAPR. If EPA does make this revision, Vistra agrees with EPA's proposed approach to rely on the existing notification process for changes in ownership of units established in 40 CFR § 97.915(c) and other information available to EPA to update its "affiliated ownership group" assignments when appropriate.

Response: After considering all comments received, we are finalizing the revisions to the Supplemental Allowance Pool allocation provisions generally as proposed, including both the portion of the proposed revisions eliminating the priority given to Coleto Creek and the portion of the proposed revisions shifting from allocations at the level of sources to allocations at the level of "affiliated ownership groups." The rationale for adopting these revisions was stated in the supplemental proposal. We do not agree that making these allocations at the source level rather than at the ownership group level would be more consistent with the approach for allocating surplus allowances from the new unit set-aside (NUSA) under the CSAPR SO_2 program. The allocations of surplus NUSA allowances under the CSAPR SO_2 program are equally proportional to the initial allocations of allowances at the individual unit level, at the source level, and at the ownership group level, because the initial allocations at all of those levels

are proportional to one another. Thus, allocating the allowances from the Supplemental Allowance Pool at the ownership group level is no less consistent with the CSAPR SO_2 program than allocating the allowances at the source level.

Comment: Vistra supports the termination of the opt-in provisions currently included in the Texas SO_2 Trading Program at 40 CFR § 97.904(b) to further increase the consistency of the program with CSAPR, which could only strengthen EPA's finding that the Texas SO_2 Trading Program is better than BART.

Response: We appreciate the comment in support of this action.

Comment: Vistra supports revisions to the allowance recordation provisions found at 40 CFR § 97.921 to ensure that the Texas SO_2 Trading Program remains in continuous operation unless and until it is replaced by an EPA-approved state implementation plan and that the transition to a state plan does not cause disruption or unfair results. The existing language in 40 CFR § 97.921 provides for a delay in allowance recordation under the Texas SO_2 Trading Program based on a SIP submittal alone—not a SIP approval. This could result in delays in allowance recordation and potential confusion when a Texas-developed SIP has been submitted but not yet approved, resulting in a lack of continuity in Texas's SO_2 Trading Program. Therefore, EPA correctly proposes to revise this provision to allow delays only "in the event that Texas submits a SIP revision and EPA takes final action to approve it . . . to ensure that the program remains fully operational unless it is replaced by a SIP revision that is approved by EPA as meeting the SO_2 BART requirements for the covered units." Further, EPA should adopt a provision clarifying that all allowances allocated under the Texas SO_2 Trading Program established through the FIP process will continue to exist in their same state (i.e., banked allowances will carry over) in the event Texas develops a SIP to establish a substantially similar SO_2 Trading Program under its control. Continuity in both the existence of the Texas SO_2 Trading Program and in key elements, such as banked allowances, is necessary to ensure a functional program that properly incentivizes early emission reductions.

Response: We appreciate the comment in support of this action.

Comment: The Texas SO_2 Trading Program will result in greater emission reductions from Texas EGUs than would have been realized from participation in CSAPR. Although the existing Texas SO_2 Trading Program satisfies all applicable requirements under 40 CFR § 51.308(e)(2), EPA's proposed revisions to the Texas SO_2 Trading Program could only further ensure that the Texas SO_2 Trading Program will result in greater emission reductions from Texas EGUs than CSAPR would have achieved, confirming by the clear weight of evidence that the Texas SO_2 Trading Program is better than BART.

Specifically, the annual allowance allocation for covered sources in the Texas SO_2 Trading Program is the same annual allocation provided to these units under CSAPR—238,393 tons—which EPA has correctly determined is better than BART. The adoption of a variability limit of 16,688 tons, resulting in an assurance level of 255,081 tons of SO_2 for covered EGUs in Texas, will ensure annual emissions of SO_2 will consistently remain below 255,081 tons by limiting the year-to-year variability from the covered sources comparable to that under CSAPR.

Taking the assurance level for Texas in conjunction with EPA's conservative estimate of SO_2 emissions from non-covered sources—35,000 tons—the maximum annual emissions from all EGUs in Texas can be expected to be no greater than 290,081 tons.

Therefore, as a practical matter, "the Texas SO_2 Trading Program will result in SO_2 emission levels from Texas EGUs that are similar to or less than the emission levels from Texas EGUs that would have been realized had Texas continued to participate in the SO_2 trading program under [CSAPR]." As established in EPA's CSAPR Better-than-BART analysis, those emission reductions would achieve greater reasonable progress than BART. This is true for both Class I areas in general and also with respect to Class I areas that are allegedly impacted by Texas EGUs. Accordingly, EPA appropriately "has high confidence that emissions will be below the amount assumed in the BART-alternative sensitivity analysis utilized for the 2012 CSAPR Better-than-BART determination (i.e., 317,100 tons), and thus visibility levels at Class I areas impacted by sources in Texas are anticipated to be at least as good as the levels projected in the 2012 analysis that assumed Texas would be in the larger CSAPR SO_2 trading program." Indeed, the Texas SO_2 Trading Program will result in greater visibility improvements at Class I areas than projected under EPA's revised CSAPR Better-than-BART sensitivity analysis, which accounted for increases in Texas's CSAPR SO_2 budget to correct for certain errors. Notably, 255,081 tons is likely an overestimate of projected emissions because, as highlighted by EPA, units in the Texas SO_2 Trading Program have not exceeded this level of emissions since 2014, and, further, covered units that have now retired emitted 105,844 tons of SO_2 in 2017. Nonetheless, using the conservative number of 255,081 tons from covered sources, in addition to the similarly conservative number of 35,000 tons from non-covered sources (higher than the maximum annual emission level from these sources for the period from 2014-2018), the visibility benefit from the Texas SO_2 Trading Program is expected to be greater than that from nationwide BART, as shown in the table below.

Table 10. Comparison of Visibility Improvements from Texas SO_2 Trading Program with Proposed Revisions Versus Nationwide BART.

Class I Area	Visibility Improvement over 2014 Base Case from SO_2 Emissions of 290,081 tons/year under Texas SO_2 Trading Program (decrease in deciviews, 20% worst	Visibility Improvement over 2014 Base Case from Nationwide BART (decrease in deciviews, 20% worst days)33
Big Bend	1.0	1.0
Caney Creek	2.8	2.2
Carlsbad Caverns	0.8	0.8
Guadalupe Mountains	0.8	0.8
Hercules-Glades	2.2	1.7
Salt Creek	0.6	0.7
Upper Buffalo	2.2	1.4

White Mountains	0.6	0.5
Wichita Mountains	1.4	1.2
Total Decrease in Deciviews (i.e., improvement in visibility)	12.4	10.3

As the table above shows, the Texas SO_2 Trading Program is, on average, better than nationwide BART at these Class I areas. Moreover, the visibility improvement is likely to be much greater in reality, given that many of the covered EGUs that will comply by way of their retired status (and thus have zero emissions) are among the sources that EPA previously identified as having the largest visibility impact at these areas based on a Q/D analysis.

In addition, other factors weigh heavily in favor of the conclusion that the Texas SO_2 Trading Program will achieve greater reasonable progress than BART. Specifically:

(1) The annual emissions for the EGUs covered by the Texas SO_2 Trading Program will be less than or equal to 255,081 tons. Even when added to the SO_2 emissions from non-covered Texas sources (35,000 tons),36 this is substantially less than the 336,694 tons per year that EPA has determined is better than BART.

(2) The addition of the proposed assurance level will ensure that annual emissions for Texas EGUs will consistently remain below the level that EPA has determined is better than BART and will prevent significant year-to-year variability.

(3) The Texas SO_2 Trading Program regulates a greater number of Texas EGUs than would be subject to source-specific BART. The program includes all BART-eligible coal- fired EGUs, additional BART-eligible gas and gas/fuel oil-fired EGUs, and many non-BART EGUs. Under a source-specific BART approach, only BART-eligible EGUs that are also determined to be subject-to-BART would be regulated.

(4) Unlike CSAPR, the Texas SO_2 Trading Program does not permit interstate trading. Thus, Texas sources will not be able to transfer unused and unneeded allowances to out- of-state sources that would contribute to visibility impairment at Class I areas. Nor may Texas sources purchase allowances from out-of-state sources.

(5) The Texas SO_2 Trading Program is designed so as not to discourage permanent and substantial SO_2 emission reductions through EGU retirements. The program rules provide that retired units will continue to receive annual allowance allocations for a period of five years, but no longer. This limited continued allocation for retired units does not penalize unit owners for retiring units, including as a means of compliance.

(6) Due to retirements of covered EGUs, average annual emissions from EGUs covered by the Texas SO_2 Trading Program will be even less than EPA initially projected. As EPA previously noted, covered units that will comply with the Texas SO_2 Trading Program through their status as retired units emitted 105,844 tons of SO_2 in 2017.

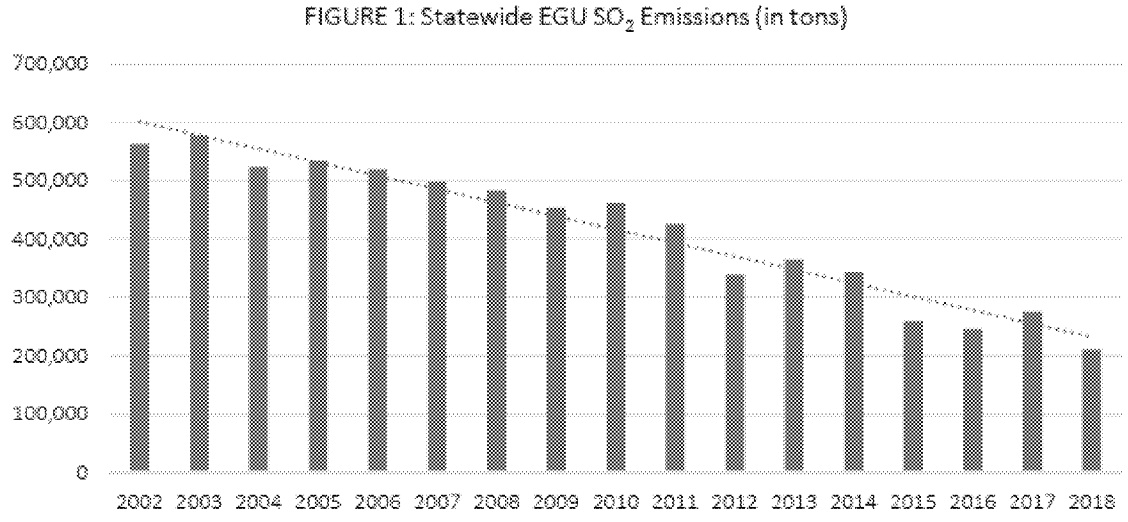
Moreover, these retired units were some of the units that EPA previously identified as having the largest impact on visibility.

(7) The Texas SO_2 Trading Program is designed to lock in emission reductions from retiring units. Under the rules, covered EGUs that are permanently retired and seek to resume operations will not receive an annual allowance allocation, but instead may only receive allowances from the Supplemental Allowance pool to the extent they are available and subject to annual caps on allocations from the Supplemental Allowance pool.

(8) The Texas SO_2 Trading Program will secure more emission reductions than Texas and other CENRAP states agreed was necessary to achieve "reasonable progress" at nearby Class I areas. Texas, Oklahoma, and other CENRAP states agreed that "reasonable progress" would be achieved through Texas EGU participation in the CAIR, and CENRAP projections that formed the basis of that agreement estimated Texas EGU SO_2 emissions under CAIR to be 350,000 tons per year. As discussed above, average annual SO_2 emissions from Texas EGUs in the Texas SO_2 Trading Program and non-covered EGUs will be significantly less.

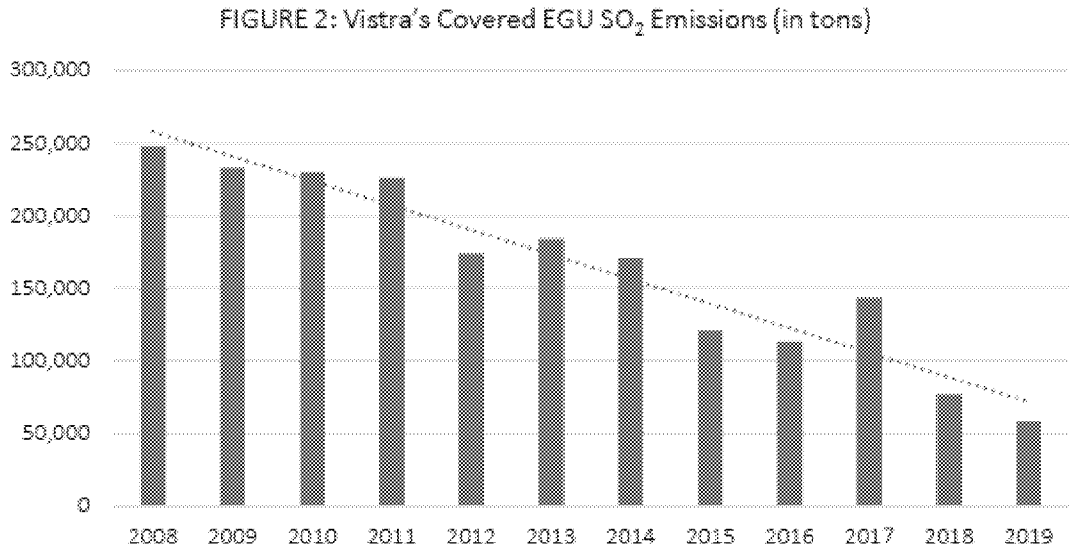
(9) SO_2 emissions from Texas EGUs have declined substantially as compared to the baseline year for the first Regional Haze planning period (2002) and continue to trend downward. These emissions are well below the level necessary for Texas and nearby states to achieve reasonable progress as shown below in Figure 5.

Figure 5. Statewide EGU SO_2 Emissions.



(10) SO_2 emissions from Vistra's EGUs included in the Texas SO_2 Trading Program have significantly declined since the beginning of the first planning period (2008), with a reduction of over 75% from 2008 to 2019 as shown below in Figure 6.

Figure 6. Vistra's covered EGU SO_2 emissions.



It is clear that the Texas SO_2 Trading Program will result in SO_2 emission levels from Texas EGUs that are similar to or less than the emission levels from Texas EGUs that would have been realized from participation in the SO_2 trading program under CSAPR. Based on this, in conjunction with the other elements identified above, the weight of this evidence is clear that the Texas SO_2 Trading Program, including the revisions proposed by EPA, will result in greater reasonable progress than BART.

No additional revisions to the Texas SO_2 Trading Program's other provisions are necessary. EPA has properly not proposed to revise the Texas SO_2 Trading Program provisions relating to banking allowances or allocations to retired units. The Texas SO_2 Trading Program appropriately includes units that were recently retired as covered units and provides annual allowance allocations to those units for a period of five years. Additionally, the Texas SO_2 Trading Program permits sources to bank any unused allowances. The approach relied on in the Texas SO_2 Trading Program is consistent with the Regional Haze provisions of the statute, CSAPR, and with other trading programs implemented by EPA.

Specifically, the Regional Haze program contemplates that states will consider source retirements in developing their long-term strategies, and EPA routinely allows sources to demonstrate compliance with regional haze and BART requirements through retirement. Providing allowances to retired units for some limited period of time is also consistent with numerous programs promulgated by EPA, including CSAPR. Retirements can achieve significant and lasting SO_2 reductions, and it is reasonable for facilities to rely on significant reductions in the form of retirements to meet their compliance obligations. If EPA were to revise these provisions, it would create regulatory uncertainty and penalize covered sources for relying on the currently applicable rules. Moreover, if EPA were to alter this provision and deny or limit allowance allocations to retired units, it would create a perverse incentive for less economic or

less efficient units to continue operating at a reduced utilization rate so they would continue to receive allowances. The approach EPA has used in the Texas SO_2 Trading Program for retired units is well established and properly incentivizes unit owners to permanently reduce emissions through unit retirements.

Further, the ability to bank allowances under the Texas SO_2 Trading Program is consistent with EPA's approach in CSAPR. In EPA's CSAPR Update, EPA recognized that "[b]anking of allowances for later use . . . creates incentives to make early emission reductions, which often result in improved air quality earlier than otherwise required." In fact, EPA has seen demonstrated success through this approach in other trading programs, such as the Acid Rain Program and the NOx SIP Call. And this "economic incentive, and the associated environmental benefits, is conditioned on the expectation that the resulting banked allowances will have some value in the future of th[e] program." Therefore, it is essential that EPA not revise these provisions "to ensure market stability, avoid perverse incentives, and potentially aid in sources' operational planning."

Response: We appreciate these comments in support of this action.

Comment: The Texas BART Rule results in emission reductions more than adequate to satisfy § 110(a)(2)(D)(i)(II). EPA properly determined in the 2018 Proposed Affirmance that the Texas BART Rule results in emission reductions adequate to satisfy § 110(a)(2)(D)(i)(II). As EPA explained, its 2013 Guidance identifies two ways in which a state's infrastructure SIP satisfies the interstate visibility transport requirement: (1) "through a state's confirmation in its infrastructure SIP submittal that it has an EPA approved regional haze SIP"; or (2) "a demonstration that emissions within a state's jurisdiction do not interfere with other states' plans to protect visibility . . . ." When relying on the second approach, EPA notes that the demonstration should "ensure that the resulting reductions conform with any mutually agreed emission reductions under the relevant regional haze regional planning organization (RPO) process." As previously noted, Texas, Oklahoma, and other CENRAP states agreed that "reasonable progress" would be achieved through Texas EGU participation in CAIR. The projections that formed the basis of that agreement estimated that under, CAIR Texas EGU SO_2 emissions would have been 350,000 tons per year.58 Because the Texas SO_2 Trading Program will secure more emission reductions than projected under CAIR, this trading program is more than sufficient to demonstrate that Texas's SO_2 emissions will not interfere with other states' plans to protect visibility, as agreed by the CENRAP states during consultation. Nothing in the Supplemental Proposal impacts this determination. In fact, the Supplemental Proposal further confirms this determination. Therefore, the Texas BART Rule in addition to the revisions identified in the Supplemental Proposal require sufficient emission reductions to satisfy Texas's obligations under § 110(a)(2)(D)(i)(II).

Response: We appreciate the comment in support of this action.